Clinical Lecture
ON
A CASE OF RENAL DISEASE ENDING IN APOPLEXY.

BY W. H. BROADBENT, M.D., F.R.C.P.,
PHYSICIAN TO ST. MARY'S HOSPITAL.

GENTLEMEN,—The anatomical pieces before you tell a tale to the educated eye far more eloquent and impressive than any I can shape into words. There are the kidneys; there is the heart; there is the brain. The kidneys diminished in size—one especially so,—rough and granular on the surface, with here and there a small cyst, and damaged in their intimate structure. The heart enormously enlarged, weighing 19 oz. instead of 9 oz. or 10 oz.,—the walls of the left ventricle greatly thickened; and this change not accounted for by any alterations of the valves, which are quite healthy and competent. The brain with a large ragged cavity in the right hemisphere, from which a great blood-clot has been extracted. To complete the chain of causation, we ought to have under the microscope, between the kidneys and the heart, and again between the heart and the brain, some of the minute arterioles from various parts, showing the muscular hypertrophy of their coats, demonstrated and explained so admirably by Dr. George Johnson. The successive links of the deadly chain would then run thus:—Disease of the kidneys gave rise to accumulation within the blood of excretory materials which these organs should have eliminated; the circulation of the blood, thus rendered impure, was resisted by the stopcock action of the muscular coat of the minute arteries for the defence of the tissues; the heart, feeling this resistance, and not recognising its conservative character, began to act with increased vigour to overcome it and carry on the circulation; while the arteries, on the other hand, contracted all the more energetically; and so, in obedience to the law that increased exercise of function by muscular fibre induces hypertrophy of structure, heart and arteries, in their strife one against the other, became hypertrophied. But when the heart is acting with increased power on the one hand, and the minute arteries are continuing their resistance on the other, the blood is at high pressure within the vessels; and if there is a weak spot anywhere the vessel will be in danger of bursting. This is what has happened in the present case, the weak point having been found in the small vessels penetrating the brain-substance from the middle cerebral artery in the posterior part of the Sylvian fissure.

The poor woman from whose body these morbid specimens were taken was admitted under my care in September. She was for a time in the Alexandra ward, more recently in No. 2 bed in the Victoria ward, where some of you have repeatedly seen her with me, little anticipating from her appearance the sudden fate which has overtaken her. Her illness, according to her own account, dates from an attack of hemiplegia of the left side two years since, while pregnant. This seems to have been severe, as it was six months before she was able to walk about again. She got over her confinement, however, without any difficulty or complication. After regaining a fair state of health, she had within the last few months been complaining of weakness, loss of appetite, imperfect digestion of her food, discomfort after eating, &c.

She did not look particularly ill, and she presented no appearance suggestive of any special disease. Very slight traces of her old paralysis remained. Investigating the causes of her complaints, we came at once upon the fact that the urine contained albumen. This we might have suspected from the occurrence of hemiplegia during pregnancy. The amount of albumen varied considerably; there was never much, and sometimes it was absent altogether. The urine was pale, not perfectly clear, acid in reaction, and of a specific gravity of 1018, as a rule—never, so far as I know, below 1015—sometimes as high as 1020. Now this is a high specific gravity for the state of kidney we supposed to exist—contracted granular kidney,—and at times cast a momentary doubt on the diagnosis. I account for it now by the fact that in one kidney the morbid change was still in an early stage. We obtained little microscopic evidence as to the kidney mischief—a few particles of damaged renal epithelium, and rare and questionable fragments of small granular casts. There was no trace of dropsy or œdema, and never had been; but in this particular affection of the kidneys we do not expect it, and, as I have said, there was no marked renal look.

But we had evidence from another source in favour of our diagnosis—the indirect evidence of the vascular system. I frequently pointed out to you the peculiar character of the pulse. On asking a student to describe it, the invariable report was that it was weak; and to the fingers placed lightly on the vessel that was the impression conveyed; there was, in effect, very little pulsatile movement in the artery. But then it was very large and very hard, and the vessel slipped and rolled about under the finger like a bit of thick whipcord, reminding one of the vas deferens among the structures of the spermatic cord, only much larger; and when it was attempted to control the pulsation by pressure with the finger nearest the heart, it was found to be a very difficult matter. Press as one would almost, the pulsation could still be felt by the two fingers on the distal part of the vessel. The first impression of weakness was thus at once removed, and the pulse recognised to be extremely strong; it was the long, hard, large pulse of high arterial tension, which gives a sphygmographic trace of gradual ascent, low elevation, rounded summit, and gentle, unbroken fall.

Then as to the heart: the area of dulness over it was extensive; its impulse was a powerful and widespread heave; the apex-beat was conspicuously evident to both eye and hand below and to the left of its normal situation. This was of course evidence of considerable hypertrophy. A mitral murmur was reported to me by my resident medical officer when the patient was first admitted, but I did not succeed in hearing it: I thought I distinguished once or twice a smooth, feeble, systolic, tricuspid murmur; and a hæmic pulmonary murmur could sometimes be heard. I attached no importance to any murmur found to be present; but modifications of the heart-sounds of extreme interest were detected—namely, reduplication of the first sound over the inter-ventricular septum, extinction of the first sound and exaggeration of the second over the aorta. These have recently been beautifully explained as phenomena of high blood-pressure by Dr. Sibson. To distinguish the reduplication you must either have the double stethoscope and place one mouth over the right ventricle and the other over the left, or the common stethoscope must be planted over the septum between the ventricles. At the apex or over the sternum the first sound is pure and single; it is only when the sound given out by both the ventricles in their contraction is conveyed to the ear that a doubled sound is heard. This alone would suggest what is clearly brought out by manœuvring with the double stethoscope—namely, that the reduplication is due to the want of exact synchronism in the contraction of the two ventricles: that of the left is retarded by the extreme resistance to the entry of more blood into the already distended arteries, and thus the right gets a slight start. Each ventricle produces sound by its systole; and when, from any cause, the normal coincidence of the two is disturbed, the first sound of the heart, which is compounded out of the two sounds of the ventricles, is reduplicated. The diminution or extinction of the first sound over the aorta, again, is explained by the arterial tension, which prevents the left ventricle from throwing its contents rapidly into the aorta, and renders its action more gradual; while the increased pressure within the aorta, forcing back the semilunar valves with undue violence, causes the second sound to be louder.*

The high arterial tension so obviously indicated by the signs I have mentioned, which I repeatedly pointed out in my visits to the ward, and the cardiac hypertrophy, were corroborative of the diagnosis of contracted granular kidney. Another corroborative sign I looked for in vain: I mean

* The tension of the arterial walls is an element in the production of the second sound, but this and other points were not discussed. Nor is what has been said intended as a complete exposition of the relation of the modification of the sounds to the arterial tension; it was rather a reminder to students already familiar with Dr. Sibson's teaching.

the characteristic changes in the retina. My note of the appearances presented by the fundus of the eye on ophthalmoscopic examination is as follows:—The fundus of the eye generally seemed paler than usual, the optic disc a little more pink; so that, though the disc was well defined, the difference between it and the surrounding retina was less marked than usual. It was small, had no appearance of elevation, and presented in the centre a white spot from which the vessels issued. The retinal artery seemed smaller than usual. No white spots or hæmorrhages were seen.

The objects to be kept in view in the treatment of a case of this kind are simple and obvious. We cannot hope to undo the structural mischief already done in the kidney; in some cases we may perhaps arrest the morbid process when it is traceable to some known cause, as alcoholic excess, &c.; but, generally speaking, what we have to do is to avert as long as possible the consequences—the accumulation of urea or other poisonous substances in the blood, and the loss of strength and deterioration of structure to which the state of the blood gives rise. The bowels must be kept open, the action of the skin must be encouraged, so as to secure whatever vicarious elimination their excretions may afford; the diet must be regulated and digestion aided; and it is generally beneficial to give the tinct. ferri muriatis. This was the line of treatment we followed, and our patient seemed decidedly better; she was relieved of the symptoms which caused her to seek admission; the reduplication of the first sound of the heart was no longer heard; the artery at the wrist was not so full and hard; once, indeed, for a few days during a brief pyrexia the peculiar character of the pulse was lost altogether; and it was expected she would soon leave the hospital greatly relieved.

The dangers to which the subjects of this form of Bright's disease are exposed are, on the one hand, uræmic poisoning, so called when the nervous system is affected, or secondary inflammation of important organs, or effusions into the great cavities, from disturbance of the normal relations between blood and tissue; or, on the other hand, rupture of a vessel in the head as a consequence of the great arterial tension. We had no special reason to anticipate any of these unfavourable effects immediately. The specific gravity of the urine seemed to guarantee the elimination of a fair proportion of the urinary constituents; the patient had not the well-known renal look; she was not old; there were no advanced retinal changes, and the arterial tension was reduced. There was, however, an element of danger, of which I was not for some time aware. The woman was five or six months pregnant. She had stated all the time she was under observation that the catamenia were regular, and nothing had occurred to lead to a physical examination of the abdomen till shortly before her death, when she mentioned some uneasy sensation in the hypogastrium. I proceeded to see if any cause for this was to be found, and, coming upon the uterus, I said at once, "Why, you are pregnant." This the patient strenuously denied, repeating her statement that she had been quite regular, and was, in fact, menstruating at the time; saying, also, that the tumour I felt had been there for some time. She was a married woman, and had no reason for concealing her pregnancy, unless, as it has occurred to me since, she had apprehensions of danger attending it, which made her wish to blind herself to its existence; and I accepted her denial *pro tem.*, with the intention of making further investigation when the catamenial period was over. Now, without saying at all that the pregnancy was an important factor in the causation of the hæmorrhage, the coexistence of pregnancy and albuminuria is a serious matter, which, had it been fully known to me, would have led me to look on the immediate future of the patient with more apprehension. But this is a point into which I cannot enter fully now, and we must come to the fatal attack, which was preceded, and perhaps determined, by two or three days of more than usually obstinate constipation.

At about 3.30 on the morning of Thursday, November 30th, she was apparently as well as usual, and asked the night-nurse for drink. A few minutes later her right leg and hand were knocking against a screen which stood by her bedside. When the nurse went to her, the right limbs were thrown about, but more as if the movements were voluntary than convulsive, while the left limbs were rigid, contorted, and twitching; the face was at first distorted. By the time the sister of the ward and the resident medical officer reached her the movements of the right side were less violent; the face was equal on the two sides, but the rigidity of the left limbs was the same; the right pupil was greatly dilated, the left much contracted. The patient recognised both, and gave their names, but she could give no account of herself, or of what she felt. Later she was more quiet, but from time to time tossed off the clothes with the right hand or leg, and rubbed her head with this hand, while the left limbs remained rigid and powerless, and were at intervals shaken by a peculiar tremor; the left hand was powerfully pronated, and the fingers and wrist flexed; she resisted when the eyes were opened, seemed to resent disturbance, evidently felt a pinch on the right side, but gave no indications of sensation on the left half of the body; she swallowed fluids pretty well; no signs of consciousness beyond those first mentioned could be elicited. Soon after 3 P.M. convulsive movements again came on, and she died almost instantly. The tongue was bitten.

These details are chiefly interesting in connexion with the seat and extent of the hæmorrhage. The clot lay to the outer side of the right corpus striatum and thalamus, and had torn through the fibres passing from them into the hemisphere. It extended along nearly the whole length of the ganglia, but did not turn round the anterior end of the corpus striatum. Its upper part was on a level with the intra-ventricular surface of these bodies. Inferiorly it was separated by a very thin stratum of nervous matter from the fissure of Sylvius, and, in my opinion, the source of the bleeding was the small branches of the middle cerebral artery here penetrating the brain-substance. Now, my interpretation of rigidity in the paralysed parts at the onset of apoplectic hemiplegia is injury near, but not extensively or deeply involving, the motor ganglia or tract. Destructive lesion of the motor apparatus appears to leave the paralysed limbs relaxed; pressure upon, or "irritation" of it, while its cells and fibres are still in continuity, appears to me to render them rigid. This view of mine may, of course, at any time be overthrown by facts inconsistent with it; but, at any rate, it has the support of this case, and I could give you many others.

One question remains: "Could anything have been done to postpone the fatal issue when once the rupture of the vessel had occurred?" I do not know, but had I seen the patient at once I should have bled her, simply on the ground of the antecedently known high arterial tension. We can all see now that, at least, this would have done no harm. You will not, however, from this statement infer that I recommend or practise venesection in apparent apoplexy as a rule; the very contrary is the case, and on some future occasion I hope to show you reasons for this.

Looking once more at the morbid specimens, and taking a backward glance at the history of an attack of hemiplegia in a previous pregnancy, at the comparatively slight evidence of kidney disease offered by the urine and general appearance of the patient, and at the assistance to a correct diagnosis and warning as to the kind of danger to be apprehended afforded by attention to the signs of arterial tension in the pulse and in the modifications of the heart sounds, and remembering also, as I always shall, the existence of pregnancy at the time of the final apoplexy, you will find the case full of interest and instruction.

CONTRIBUTIONS ON THE PHYSIOLOGY & THERAPEUTICS OF FOOD.

By F. W. PAVY, M.D., F.R.S.,
LECTURER ON PHYSIOLOGY AND PHYSICIAN AT GUY'S HOSPITAL.

No. V.

THE PURPOSES SUBSERVED BY THE NITROGENOUS PRINCIPLES AS ALIMENTARY MATTER.

FIRST in importance is the office fulfilled by affording a supply of material for the growth primarily, and for the renovation secondarily, of the tissues. Wherever vital operations are going on, there nitrogenous matter is present, forming, so to speak, the spring of vital action. Although non-nitrogenous matter contributes in certain ways towards the maintenance of life, yet it is nitrogenous matter

in which arise the molecular changes that determine the phenomena of life. Nitrogenous matter, it may be said, forms the basis without which no life manifests itself. Life is coincident with molecular change. In non-nitrogenous matter the elements of the molecule are not, of themselves, prone to change, as in the nitrogenous molecule, where there exists a greater complexity of grouping among the elements, and where also the elements cohere so loosely or are so feebly combined as to have a tendency to alter or to re-group themselves into simpler combinations. By this change in the nitrogenous, change is started in the contiguous non-nitrogenous molecule, and occurring, as it all does, in a definite or prescribed direction, the phenomena of life are given rise to. Nitrogenous matter, in short, is the instrument of living action, and, as such, it is incessantly being disintegrated—destroyed—changed; becoming effete and inert, and thus necessitating a supply of fresh nitrogenous matter to replace that which has been used up. The primary object, therefore, of nitrogenous alimentary matter may be said to be the development and renovation of the living tissues.

We have seen that nitrogenous matter forms an essential part of living structures. It acts in the same manner in the case of secretions. These owe the active properties with which they are endowed, always in part, if not always entirely, to a nitrogenous constituent. This is drawn from the blood by the glands just as it is drawn by the tissues; and in passing from the blood it is modified or converted by the agency of the gland into the special secretory principle encountered. Nitrogenous matter is thus as essential to the constitution of the active secretions as it is to the tissues; and as the amount of the secretions required is in relation to the general vital activity, a corresponding demand for nitrogenous matter is created.

I now come to treat of

NITROGENOUS MATTER IN RELATION TO FORCE-PRODUCTION.

The dependence of muscular and nervous action upon oxidation of the respective tissues is one of the many doctrines which have sprung from the theorising intellect of Liebig. According to this view, nitrogenous matter alone constitutes the source of muscular and nervous power. The tissues being worn out by the exercise of their functions or in the manifestation of their dynamic properties, fresh nitrogenous matter is needed to replace that which has gone to the production of power. It is thus inferred that nitrogenous matter is not only applied to nutrition and to the evolution of the nitrogenous constituents of the active secretions, but also to the restitution of the loss incurred by the production of power. What wonder, then, if, with all these purposes to fulfil, the nutritive value of food should have been reckoned by the amount of nitrogenous matter it contains.

Like many other of its author's views, this doctrine appeared so plausible that for some time it reigned unquestioned. Experimental inquiry, however, gradually began to invalidate it, until Traube arrived at a directly opposite conclusion as to the source of muscular and nervous power. According to this observer, the organised or nitrogenous part of a muscle is not used up in its action, and the resulting force is due to the oxidation of non-nitrogenous matter, the muscle merely serving as a machine to convert the liberated force into motor power. The problem has attracted much attention in several quarters. Let us see how the researches conducted of late with so much elaboration affect its solution.

This solution will be contained in the answer given to the following question: Does the force evolved by muscular action proceed from the destruction of muscular tissue? If so, nitrogenous matter will be needed to repair the loss incurred, and it is equivalent to nitrogenous matter through the medium of muscle being applied to the production of motor power. Now, if muscular action is coincident with the destruction of muscular tissue there must, as a product of the destruction, be a nitrogen-containing principle eliminated. The elements of the compounds that have served their purpose in the economy do not accumulate, but are eliminated from the system in some form of combination or other. The nitrogen, therefore, belonging to a consumed nitrogenous structure, should be recognisable in the effete matters thrown off from the body. Nay, as the force developed by muscular action cannot arise spontaneously—as it can be produced only by transmutation from another force—the destruction of muscular tissue (which implies chemical action as the source of power) should be in proportion to the amount of muscular work performed, and the nitrogen contained in the excreta should be in proportion to the amount of muscular tissue destroyed.

It happens that the quantity of outgoing nitrogen is susceptible of easy and exact determination, and it is thus in our power to arrive at a solution of the question by appeal to experiment.

First of all, as to the channels by which the effete nitrogen passes out of the system.

According to the latest researches, no appreciable amount escapes in either the cutaneous or the pulmonary transpiration.

There remain the alimentary canal and the kidneys as the only channels of exit. Nitrogenous matter is found in the discharges from both these passages; but more particularly from the kidney. And, although discordant results were formerly obtained, it may now be looked upon as established that an amount of nitrogen equivalent to that which enters with the food can be recovered from the urine and alvine dejections.

Lehmann found, while subsisting on a purely animal diet (eggs), that a daily average of 30·3 grammes (467 grains) of nitrogen entered his system, and that a daily average of 24·4 grammes (376 grains) was discharged by the urine; hence a quantity equal to five-sixths of the ingested nitrogen escaped by the kidneys.

Dr. Parkes, in a series of very carefully conducted experiments upon two soldiers,* obtained the following results in relation to the ingestion and egestion of nitrogen. Two men for sixteen days were made to consume exactly the same allowance of food every day. During that period the nitrogen taken amounted to 313·76 grammes; from the urine of one man were recovered 303·660 grammes, and from that of the other 307·257 grammes, being 10 grammes of nitrogen less in the former, and 6 less in the latter, than that taken with the food. An analysis of the alvine evacuations was made only upon three occasions, and, taking the mean of the results given as representing the daily average of nitrogen discharged from the alimentary canal, it amounted for the sixteen days in the case of one man to 25·8, and in that of the other to 17·2 grammes of nitrogen, thus somewhat exceeding the deficiency apparent between the ingested nitrogen and that excreted in the urine, or giving rather more nitrogen discharged than nitrogen ingested.

Let it be taken, then, that the outgoing nitrogen is to be found in the products discharged from the kidneys and bowels. The nitrogen eliminated by the latter, owing its origin to the nitrogen in the undigested food on the one hand, and that in the unabsorbed intestinal secretions on the other, has no bearing on the question in view. It is with the urine that the nitrogen resulting from the metamorphosis of nitrogenous matter in the system passes out, and observation has shown that in the human subject the form chiefly assumed is that of urea.

Now what is the state of the urine in relation to rest and exercise? If muscular disintegration forms the source of muscular work, the quantity of urinary nitrogen ought to increase in proportion to the muscular work performed. Lehmann, imbued with the doctrines of Liebig, as his writings show, speaks of there being an actual increase in the elimination of urea in proportion to muscular exercise, and yet he gives it as the result of observation upon himself that, while under ordinary circumstances he passed about 32 grammes (493 grains) of urea in the twenty-four hours, the quantity passed after severe bodily exercise was upon one occasion 36 grammes (555 grains), and upon another 37·4 grammes (577 grains)—only this moderate deviation to represent the difference in the amount of muscular work performed.

Voit experimented on a dog, and determined the amount of urea voided during rest and the performance of mechanical work in association both with abstinence and a regulated diet of meat. The work imposed on the dog was running in a treadmill. The results, alike during abstinence and feeding, exhibited no material excess in the urea voided during work over that voided during rest.

Dr. E. Smith also, in his observations on the elimination

* Proceedings of the Royal Society, June 20th, 1867.

of carbonic acid and urea during rest and exercise, found, in the case of the prisoners at Coldbath-fields, that, in the absence of food, the labour of the treadwheel did not materially increase the nitrogen discharged under the form of urea. Like others have done, he noticed a distinct relation between the urea discharged and the food ingested. At the same time he suggested—and, be it remembered, this was as far back as ten years ago—that the relation between urea and muscular work was far less established then than it had been considered to be some years previously.

The theory that muscular work is dependent on, and proportioned to, the destruction of muscular tissue by oxidation, received its decisive blow from the now celebrated observations of Fick and Wislicenus, professors of physiology and chemistry respectively at Zurich.* These experimentalists subjected themselves to a measurable amount of work by ascending a mountain of an ascertained height. They argued that if the work performed be due to destruction of muscular tissue, then (the urine containing the nitrogenous product of destruction) the collection of the urine, and the determination of its nitrogenous contents, ought to show the amount of nitrogenous matter destroyed. Again, as the mechanical work to be performed must be represented by an equivalent of chemical action to produce it, the destruction of nitrogenous matter, as measured by the nitrogen appearing in the urine, ought to balance the amount of the work performed. To simplify the experiment, the food consumed by the experimentalists consisted wholly of non-nitrogenous matter; so that the nitrogen appearing in the urine might be derived exclusively from the system.

Drs. Fick and Wislicenus chose, for ascent, the Faulhorn near the Lake of Brienz in the Bernese Oberland—a steep mountain of about 2000 metres (6561 feet) above the level of the lake, and furnished with hotel accommodation on the summit, enabling them to rest over night and make the descent next day.

On the 30th of August, between ten minutes past five in the morning and twenty minutes past one in the afternoon, the ascent was made. From the noon of the 29th no nitrogenous food had been eaten by the experimentalists—their diet consisting solely of starch and fat taken in the form of small cakes, sugar; and tea, beer, and wine as fluids. After ascending the mountain Drs. Fick and Wislicenus rested, and took no other kind of food till seven in the evening, when they partook of a plentiful repast of meat and its usual accompaniments.

They began to collect their urine for examination at 6 P.M. of the 29th—that is, six hours after the commencement of their non-nitrogenous diet. The urine secreted from this time till ten minutes past five A.M. of the 30th, when the ascent began, was called the "before-work" urine. The urine secreted during the ascent was called the "work" urine; and that from 1.20 P.M. to 7 P.M. the "after-work" urine. Finally, the urine secreted during the night spent on the Faulhorn up to half-past five A.M. was also collected and termed the "night" urine.

Each specimen of urine was measured, and both the quantity of urea and the absolute amount of nitrogen determined. For the demonstration before us, it will suffice to take the nitrogen.

The quantity of this element secreted per hour, as deduced from the amounts contained in the respective specimens and from the time occupied in secretion, stood thus for the several periods:—

Quantity of nitrogen excreted per hour.

	Fick. Grs.	Wislicenus. Grs.
Before-work	0·63	0·61
During-work	0·41	0·39
After-work	0·40	0·40
Night	0·45	0·51

A glance at these figures shows the agreement existing between the two cases. The result proved that, while the nitrogenous excretion was related to the food ingested, it was not so to muscular action. The less nitrogen produced during the "work"—and "after-work" periods as compared with the "before-work" period—was plainly attributable to the absence of nitrogenous food from the diet. During the night, after the meal of mixed food, there was an increase, greater in Wislicenus's case than in Fick's; but the one meal did not bring the amount of nitrogen up to the point at which it stood shortly after the commencement of their abstinence from nitrogenous food.

First, then, the conclusion may be drawn from this experiment that muscular work is not accompanied by an increased elimination of nitrogen, such as might be looked for if the work resulted from the oxidation of muscle. But let us inquire whether the disintegration of nitrogenous matter which actually occurred during the "work" and "after-work" periods, as measured by the nitrogen excreted, would correspond with the generation of force equivalent to that expended in the work performed.

The nitrogenous matter of muscle containing, say, in round numbers, 15 per cent. of nitrogen, it is easy to calculate to how much muscular tissue the excreted nitrogen was equivalent. Then, taking this muscular tissue, an approximate if not an absolute estimate can next be given of the amount of mechanical work which its oxidation would be capable of producing.

As regards the other side of the question, the height of the ascended mountain being known, the amount of muscular force expended in raising the weight of the body to the summit can be definitely stated.

We have before us—

1. From the nitrogen excreted the amount of nitrogenous matter oxidised.

2. The amount of force that this oxidation would generate; and

3. The expenditure of force required to raise the bodies of the experimentalists to the height they reached.

If the work performed were due to the destruction of the muscle, then the second factor ought to equal the third; that is to say, the force producible from the muscle oxidised ought to equal the force expended. The results of the calculation, however, show, as will be presently seen, that the force expended considerably exceeded what could be accounted for by the nitrogenous matter consumed.

Before completing the calculation, there is a further point that requires to be taken into account. Besides the force expended in simply raising the body weights of the two men to the elevation reached, there would also be occurring during the performance of the work an expenditure of muscular power in keeping up the circulation, in respiratory action, and other life processes. The calculations on these points have been carefully worked out by Fick and Wislicenus; and though the data for calculating can scarcely be regarded as precise enough to warrant our looking upon the results given as scientifically exact, still they may be admitted as affording a safe general expression of the matter. We are also told that, in dealing with doubtful data, figures were taken as favourable as was permissible to the old hypothesis of the source of power in muscular oxidation.

Now, summarily stated, the result of the experiment was that the measured work performed during the ascent exceeded by about one-half in Fick's case, and more than three-fourths in that of Wislicenus, the amount which it would be theoretically possible to realise from the amount of nitrogenous matter consumed.

* On the Origin of Muscular Power. By Drs. Fick and Wislicenus. *Philosophical Magazine* (Supplement), vol. xxxi., 1866.

THE CASES OF MR. WATSON AND CHRISTIANA EDMUNDS MEDICO-PSYCHOLOGICALLY ANALYSED.

BY FORBES WINSLOW, M.D., D.C.L. OXON.

I WISH, without indulging in an elaborate exordium, briefly to consider, in a medico-psychological point of view, the two remarkable cases of murder which have during the last fortnight absorbed, to so intense a degree, public and professional attention.

With regard to the Rev. Mr. Watson, a great mistake was committed in the line of defence adopted by his learned and accomplished advocate. The error into which he fell may have either arisen from the obscure character of the case with which he had to deal, or have been the result of the mistaken diagnosis of those who instructed him.

The attempt to defend Mr. Watson simply on the plea of "melancholia," unsupported by other evidences of insanity before or at the time of the murder, was, according to my judgment, practically to abandon the criminal to his fate. It may be argued that this was the only plea that could have been advanced in favour of the prisoner—that there was nothing in his past life, either in regard to his conversation or conduct, which could be rightly cited as evidence of the existence of mental derangement prior to the murder of his wife. Under these circumstances his defence could only rest upon a presumed state of mind which existed at the time of the murder. I do not believe that this was the right position to take up in defending the prisoner. Mere melancholia has never before been advanced in a court of justice as a valid and scientific plea in favour of a person accused of a capital offence. It would be most dangerous to the best interests of society if such a defence was accepted as an excuse for great crimes. I am speaking of melancholia pure and simple, unassociated with other symptoms of mental disorder. It may be argued that in Mr. Watson's case the melancholia was combined with suicidal impulses, and this gave great significance to the case. No doubt it did (particularly as homicidal and suicidal mania are so often found in close alliance); but nevertheless the right and safe plea was not raised. This issue was an untenable one. The case of Mr. Watson was, to my mind, clear and unmistakable, and if the term "melancholia" had not been introduced into the argument, I believe the jury would have had no difficulty in acquitting him on the ground of insanity. Judging by Mr. Watson's antecedents, as detailed on the trial, but more particularly as deduced from facts that have come to the knowledge of the public since his condemnation, I am of opinion that the great mental distress and anxiety to which he was exposed in consequence of his loss of situation, income, and social position, associated with his deep domestic sorrow, which induced a state of profound despair, had seriously damaged his brain, and ultimately also affected his mind, and that, although in all probability ordinary observers did not notice in him any well-developed symptoms of insanity (and how often this is the case!) previously to the murder, the germs or elements of mental alienation were no doubt in existence, and the train of powder was laid, ready to be ignited directly the torch (an exciting cause) was applied.* I believe that in Mr. Watson's case the violent quarrel he had with his wife, the last no doubt of a series (and no revelation has yet been made as to the fearful struggle that then took place) acting upon an intensely overwrought, and probably *congested* brain, rendered, by the severe strain to which he had been exposed, acutely susceptible of morbid exaltation, developed a *sudden burst of maniacal frenzy* (not ordinary anger, as understood by the words, "*ira furor brevis est*"), and that in a state of *paroxysmal madness* (utterly destroying his capacity to distinguish between right and wrong) which this induced, committed the murder. His apparently rational conduct subsequent to the crime does not invalidate this theory. The hypothesis of melancholia *alone* could not explain the case; for melancholia is rarely, if ever, found associated with homicidal impulses. There is a suicidal melancholia, but not a homicidal melancholia, except as associated with symptoms of acute mania and distinct delusive ideas. Great stress was laid by counsel upon the opinion expressed by some of the medical witnesses, that they had never known a case of homicidal insanity which had not been preceded by evident symptoms of disordered mind. This declaration told fearfully against the prisoner, and in a measure secured his conviction.

But is not medico-psychological literature replete with the history of cases in which impulsive insanity or "murderous madness" has *suddenly* developed itself when no symptoms of mental alienation were—although in all probability existing—previously *observed*? Similar phenomena are common in cases of suicide. Under the head of "transient and impulsive insanity," as described in the leading psychological text-books, instances of this kind are related. It was said that in Mr. Watson's case no delusion could be detected; and Mr. Justice Byles and Mr. Denman laid great stress on this fact. Psychological authorities affirm, and some judges admit (the late Lord Campbell, for example*), that delusive ideas are not always present when the mind is disordered. But I believe it will be found that Mr. Watson was under the influence of an *undetected* delusion. The Latin sentence which he penned, and which was found on his desk after the murder, may prove eventually to be the keynote or crucial test to the discovery of a delusive impression which existed in his mind at the time of the murder. But apart from this view of the subject, I maintain that, in many cases, it requires the close and careful observation of weeks before the delusive idea can be dragged forth from its hiding place and made patent to the psychological expert. Three or four examinations of a criminal in his cell, each visit lasting for about an hour, or even more, will not in every case enable the physician, however skilled he may be, to detect, in subtle cases of insanity, the presence of a delusion.

On this subject, Dr. Bucknill says: "In cases of concealed delusions, or of diseases affecting the propensities, no medical man ought to give an opinion on such shallow grounds [viz., two or three visits to the accused and conversing with him in his cell]. I am not ashamed to acknowledge that I have often observed patients daily for several weeks without being able to detect any delusions."†

I trust that long before the time arrives for the execution of this learned and aged clergyman, his mental condition will be subjected to a close and rigid analysis, and his deportment and conversation (when alone and apparently unobserved in his cell) will be closely watched, particularly at night; and then I believe his insanity will be recognised.

With regard to the case of Christiana Edmunds, I have no lengthened remarks to make. She was declared by the medical witnesses to have a "defective moral sense," to be "deficient in moral feeling," "not able to distinguish right from wrong." Beyond this rather questionable phraseology the psychological experts did not venture.

Without questioning the existence of what is understood by the term "moral insanity," I do not think, judging from the facts elicited at the trial, that Miss Edmunds suffered from this type of mental disease. She undoubtedly inherited to a remarkable degree an insane taint, but would it not be dangerous to the best interests of society, and very damaging to the interests of medical science, if the existence of an hereditary predisposition to insanity could *per se* exculpate the criminal from the legal consequences of his violation of the law? In all cases of suspected or alleged insanity allied to crime, the fact of the accused person having descended from an insane stock is valuable corroborative evidence as to his mental condition, and becomes of value when associated with other indications of disordered intellect. I think there were strange and mysterious circumstances connected with her relation to Dr. Beard which, had they been closely sifted, might have thrown considerable light on the state of her mind, and have led to the discovery of positive evidence of insanity. It might have been found that she had an insane passion for Dr. Beard, and that she was under a delusion that he had encouraged it. Why counsel shirked this part of this case is best known to themselves. No doubt they had good and valid reasons for so doing. Again, there is the assertion she made when in the dock, that she was pregnant, may be viewed either as a falsehood to escape the extreme penalty of the law, or it may have been an unfounded delusion often observed among insane persons.

Dr. Lockhart Robertson thought the case of Christiana Edmunds occupied what may be termed in the psychological chart the "border-land between crime and insanity." There can be no doubt as to the existence of the neutral territory to which he refers. It is a kind of *tertium quid*, the precise latitude and longitude of which has not as yet been clearly defined by the Medico-Psychological Association or the Royal Geographical Society. This intermediate colony is peopled by a large number of *quasi* lunatics—half-witted, sombre, clever, sullen, melancholy persons, the type of thousands who are daily mixing in society, and whose condition might easily, upon a superficial examination, be confounded with actual insanity, and whose state of mind would certainly be considered "insane or unsound" should they be guilty of any overt act of sufficient importance to call for public and professional attention. Beattie

* It is reported that at the time of the murder he was on the brink of starvation, and that he had only £75 in his possession, with no prospect of increasing his income.

* Bainbrigge v. Bainbrigge.

† On the Classification and Management of Criminal Lunatics, p. 36.

refers to this class of persons, and poetically paints a typical case:—

"Silent when glad, affectionate though shy,
And now his look was most demurely sad,
And now he laughed aloud, and none knew why;
The neighbours stared and sighed, yet blessed the lad,
Some deemed him wondrous wise, and some believed him mad."*

Do we not meet in daily life, particularly among women, numerous instances of excitable, irritable, half-mad persons, easily stimulated to violent rage, or by the most trivial causes depressed to the lowest depths of despondency and despair? An inherited insane taint, a highly overwrought nervous organisation, and an hysterical diathesis, are the usual concomitants of those who belong to this eccentric section of society. Dr. Lockhart Robertson, no doubt, is quite right in supposing that Christiana Edmunds formed one of these "peculiar people," and might have run well in harness with the celebrated murderess Constance Kent.

Dr. W. Wood thought the prisoner was insane because she laughed at the idea of being executed for the crime she had committed; but the details published since her trial as to the extreme mental anguish she exhibited when she was told that she was not *enceinte*, and that there was no hope for her life on that plea, disprove altogether his hypothesis.

It was not to be expected that in two important cases like those referred to the judge and bar would waive their traditional right to carp and cavil at the use of psychological terms, or decline to take exception to what they think proper to term the "wild, meaningless, and speculative theories of 'mad doctors.'" It is not difficult to combat successfully with these captious and querulous objections. I once heard the late Lord Campbell say to a distinguished physician, who was giving evidence in a case of insanity, and had been obliged to use the term "homicidal insanity"—"Homicidal insanity! I will not allow those words to be used in my presence." But this indignant judicial repudiation of accepted terms—the technical language of science—did not alter in the slightest degree the fact of the existence of a type of mental derangement which manifests itself by murderous propensities, and which psychologists designate "homicidal insanity."

When Galileo was brought before the Inquisition and accused by the seven Cardinals of teaching the doctrines of Copernicus as to the earth's revolution round the sun, a proposition which was denounced by his judges as "an absurd theory, false in philosophy, heretical in religion, and contrary to the testimony of scripture," he was, after conviction, sent to a dungeon, and although he subsequently was forced to recant, and compelled to promise (on the condition of his being released from prison) that he would not teach the doctrine of the earth's motion either by speaking or writing, he was heard, as he left the judicial tribunal, to say triumphantly (but *sotto voce*) "*E pur si muove*"—verily it moves. In a similar spirit the psychological expert may, when called to account for using medical phrases unacceptable to judicial "ears polite," exclaim, "The diseases represented by these well-recognised terms have a real and actual existence, and cannot be sponged or stamped out of the nosological chart by the *dictum* of any judge, however high his rank, profound his learning, and exalted his legal position."

In reference to what one of the medical witnesses said to the judge, when asked to define the term "unsoundness of mind," which he (the witness) said was equivalent to the term "lunacy," I would remark that unsoundness of mind is not "lunacy" in the legal acceptation of the phrase. This term was first used in a statute passed in the reign of Henry VIII., relating to the punishment of treasonable offences; and is defined by the early law text-books to be strictly one who "*quadet lucidis intervallis*,"—a definition not psychologically exact.

The phrase "unsoundness of mind" was first used by the late Lord Eldon to designate a state of mind not exactly idiotic, and not lunatic with delusions, but a condition of intellect occupying a place between the two extremes, and unfitting the person for the government of himself and the management of his affairs. This definition of Lord Eldon's was accepted and acted upon by all the judges who were his contemporaries, or who succeeded him on the judicial bench—viz., Lords Lyndhurst, Brougham, Kenyon, Ellenborough, &c. But definitions of insanity in any of its types or forms should be carefully avoided by the medical witness. I never knew a psychological expert give in a court of justice a satisfactory definition of insanity. Polonius was a true philosopher when, with epigrammatic brevity, he said to the Queen of Denmark, Hamlet's mother,—

"Your noble son is mad.
Mad call I it; for, to define true madness,
What is't but to be nothing else than mad."

In an article which appeared in the *Saturday Review* of the 20th inst., entitled "Alleged Insanity of Criminals," the writer says that the evidence given by Dr. Lockhart Robertson in Mr. Watson's case was almost exactly what was said by myself on the trial of Townley for the murder of Miss Goodwin. This is not altogether accurate. The writer omits to mention that I declined to give an opinion as to the state of Townley's mind at the *time* of the murder, but confined myself to the expression of my opinion of the mental derangement which was alleged to have developed itself during his long incarceration in Derby Gaol.

It is well known that, after I had reported Townley to be insane, the Government, in consequence of the extreme public agitation which this opinion gave rise to, sent two Commissioners in Lunacy to Derby to see the prisoner, and after a lengthened interview with him, and examination of numerous witnesses on the spot, they reported to the Government that in their judgment Townley was of "unsound mind," thus confirming the opinion I had given at the trial.*

Cavendish-square, January, 1872.

* The Minstrel.

* Since the above remarks were in print, the Home Secretary, on the advice of Mr. Justice Byles and the Lord Chief Justice, has commuted the capital sentence passed on the Rev. Mr. Watson, to one of penal servitude for life. I feel fully assured that Mr. Watson's insanity will soon be admitted, and that he will be transferred from Pentonville Prison to Broadmoor Asylum.

NOTES OF A CASE OF FATAL POST-PARTUM HÆMORRHAGE, IN WHICH TRANSFUSION OF BLOOD WAS PRACTISED.

BY W. S. PLAYFAIR, M.D., F.R.C.P.,
ASSISTANT OBSTETRIC PHYSICIAN TO KING'S COLLEGE HOSPITAL, AND PHYSICIAN TO THE EVELINA HOSPITAL FOR SICK CHILDREN.

CASES of severe post-partum hæmorrhage in which transfusion of blood is called for are fortunately so rare that our experience of that operation must always be limited. It seems to me of importance that every case in which it is practised should be recorded for the benefit of others, even when, as in the one I am about to relate, this last expedient may not have proved successful. I believe it to be of the utmost importance that our failures should be recorded as faithfully as our successes, and I therefore make no apology for bringing the history of this case under the notice of the profession. It is fair to say, however, that so far as the immediate results of the transfusion were concerned it answered my expectations, if not fully, at least to a sufficient degree to make me think that it would have had the desired effect of rallying the patient had it not been for the unfortunate recurrence of the hæmorrhage, which resisted every method of treatment, even (for the first time in my experience) the repeated injection of a solution of perchloride of iron.

On the 2nd of December, at 11 A.M., I was summoned to Mrs. ——, a patient under the care of my friend Mr. Lattey, of Kensington. She was thirty-three years of age, and the mother of three children, the youngest being seven years of age. She was a lady of delicate health, and had been for long more or less of an invalid. Her labour had been easy, the pains having commenced at 5 A.M, a living and healthy child having been born at 9.45 A.M. The uterus apparently contracted well, although there was some little difficulty about the removal of the placenta. The usual pad and binder were applied. About an hour after delivery, Mr. Lattey being fortunately still in the house, a sudden gush of hæmorrhage commenced. On removing the binder, the uterus was found to be distended with clots. These were

removed, and the usual means for arresting the flow were at once resorted to, in the application of which Dr. Pearson, of Phillimore-gardens, lent his aid. Ice-cold water was injected into the uterus, ice in lumps was placed in the cavity of the uterus, and applied externally. Firm pressure was adopted. Ergot was administered by the mouth and rectum, brandy and beef-tea were freely given, and, in fact, every means usually employed were resorted to before my arrival, except the intra-uterine injection of the perchloride of iron, of which there was none in the house, but it was sent for as soon as possible. In the meantime, however, the patient had passed into a state of the utmost danger. When I saw her she was cold and almost pulseless, or rather her pulse was a mere thread, which every now and then could not be felt at all. She had the usual sighing respiration and hiccough of extreme exhaustion. The hæmorrhage had ceased, and the uterus was fairly contracted, but felt spongy and soft as if it would again relax whenever pressure was removed from it; and I thought it best to provide against the recurrence of the hæmorrhage by injecting the uterine cavity freely with the perchloride of iron. It was now about 11.30 o'clock, and the patient went on from bad to worse, although there was no fresh flooding, until 2 P.M., when she seemed on the point of death.

Mr. Lattey, Dr. Pearson, and I, came to the conclusion that her only hope lay in transfusion, which we determined at once to practise. I had read with much interest Dr. Beattie's remarkable case of successful transfusion recently published in the *Dublin Quarterly Journal*, and I had provided myself with the apparatus used by him. It consists, as may be remembered, of a large pipette holding some eight ounces of fluid, to one extremity of which is attached a fine caoutchouc tube, at the end of which was the tube for inserting into the vein, which in my case was that recommended by Dr. Richardson as most suitable for transfusion. The atmospheric pressure is sufficient of itself to drive the fluid through in a steady stream. This seemed to me to be the most simple and satisfactory apparatus we possess, and it answered to perfection in Dr. Beattie's case. I anticipated the best results from it, and on trying it with water the stream was full and abundant; but, as will presently be seen, I was eventually obliged to use an ordinary syringe.

The steps of the operation were precisely those recommended by Dr. Beattie. Mr. Lattey was good enough to supply the blood, which was drawn from his arm in a full stream, and rapidly stirred as it flowed. As soon as the fibrine was separated, it was strained through a piece of fine muslin, previously dipped in boiling water, into a finger-glass floating in a bowl of water at the temperature of 106°. From this it was transferred into the pipette, which, with its attached tubing, was placed in water at the same temperature. All this was done leisurely in an adjoining room, and thus all fuss and flurry were avoided, the advantage of which, under such painful circumstances, can hardly be over-estimated.

We now proceeded to search for a suitable vein in the patient. A fold of skin at the bend of the left elbow was pinched up and divided by a lancet, and at the bottom of the incision thus formed a vein was found, but with considerable difficulty. Underneath this a needle was passed, but this, unfortunately, got displaced by a movement of the patient, and all our endeavours to find it again were fruitless. The difficulty was due to the quantity of adipose tissue, and the entire absence of blood in the veins. Eventually we determined to look for a vein in the right arm rather than waste time in further search. In this we succeeded perfectly, and after passing a probe under the vein, and making an opening into it, we easily introduced the nozzle of the injecting apparatus. To our great surprise, however, but little blood flowed through the instrument. Fancying it might be blocked up by a piece of fibrine in the tube, I removed it, and found it worked perfectly out of the vein, but on reintroducing it a second time met with the same failure. The only explanation I can give of this is that the wall of the vein fell over and blocked up the opening of the nozzle, which is bevelled off the upper surface of the tube, and that the propulsive power was not sufficient to overcome the obstruction. After repeated endeavours I was obliged to desist. I now employed an ordinary ear syringe with a fine nozzle, and with this the transfusion was effected readily. From five to six ounces of defibrinated blood were injected.

A decided improvement now commenced. Our patient became warmer, breathed more naturally, opened her eyes, and her pulse became distinctly perceptible. She was able to take Brande's essence of beef and brandy. For about an hour the improved state continued, and we were becoming sanguine as to the results. At this time, unhappily, a fresh gush of hæmorrhage took place from the uterus, not to any great extent, but sufficient to prove very serious in the patient's condition. I lost no time in again injecting the perchloride, with the effect of immediately stopping the flow. But the pulse disappeared, and the livid coldness of the extremities previously felt again showed itself. We discussed the advisability of repeating the transfusion; but, as the patient was able to swallow, and had shown some signs of rallying, we determined to postpone it. For about an hour she remained much in the same state, neither losing nor gaining ground, but able to take the beef essence and brandy in small quantities, so that we hoped for the best. I was now obliged to leave her for a short time, Mr. Lattey remaining in attendance. On my return, in about an hour, I found that, during my absence, a fresh flow had taken place, and that a third injection of the perchloride had been made. In the interval there had been no loss at all, the uterus was firmly contracted, and the discharge was sudden and unexpected. It sufficed, however, to turn the scale, and the patient had died a few minutes before my return, three hours after the transfusion and seven hours after delivery.

In considering the lessons to be learnt from this melancholy case, the most important seems to me to be the farther evidence it gives of the importance of defibrinating the blood before commencing the operation. My experience on this point fully corroborates that of Dr. Beattie in the case already alluded to. The process by which this is effected is extremely simple, and the fact of not being hurried by the necessity of completing the transfusion before coagulation has begun is of immense importance in an operation every step of which should be conducted leisurely and calmly. It is certain that the removal of the fibrine does not in any way deteriorate the blood for the purposes of transfusion, and it is an expedient the adoption of which I should strongly recommend. I do not look upon the failure of the operation as any argument against its adoption in suitable cases. On the contrary, it answered the purpose of rallying the patient when at the point of death, and of keeping her alive for several hours. The sudden and unexpected gush of hæmorrhage, occurring after the injection of the perchloride, was the turning point of the case, an occurrence of great rarity after that invaluable hæmostatic has been used in post-partum flooding. The case was also in other respects a most unfavourable one, the patient being very weakly, and much debilitated by previous illness.

I regret that Dr. Beattie's simple and inexpensive instrument should have failed to act satisfactorily. A transfusion instrument that can be purchased for a few shillings and is within the reach of all is a great desideratum, since many lives have been lost because practitioners have not the means of transfusion at hand. In some of the successful cases an ordinary syringe with a fine nozzle was used, and this I found to answer perfectly. The objections to this disappear when defibrinated blood is used, and such an instrument is in the armamentarium of every practitioner, or could always be procured at the nearest druggist's shop.

Curzon-street, Mayfair, December, 1871.

CHOLERA.—The cholera is reported to be at Konfudah, a small town on the eastern shore of the Red Sea, the deaths, according to one account, being 20 a day. Large masses of pilgrims are stated to be at Rhodes and Smyrna, the packet authorities having, on account of the stringent quarantine regulations in force at Alexandria, refused to convey them to Egypt. In consequence of the disease having appeared on the Russo-Turkish frontier, the authorities at Constantinople have directed a sanitary cordon to be established. It is also reported to be at Trebizond, and as having caused the death of a person on board one of the French packets.

THE

BOWEL LESION OF TYPHOID FEVER; ITS NATURE AND TREATMENT.

BY T. J. MACLAGAN, M.D.

(*Concluded from p. 77.*)

THE successive inoculation of individual glands by the discharges from those already affected offers a ready explanation of the protracted duration of many cases of typhoid fever. The simultaneous inoculation of a number of glands accounts for those sudden and often alarming exacerbations of the local and general symptoms which so frequently convert an apparently mild into a severe attack. No matter whether the aggravation of the febrile symptoms takes place before the cessation of the primary fever, or some days afterwards (constituting a true relapse), it is due to one and the same cause, inoculation of healthy glands by the discharges from those already affected. The alarming symptoms which are often developed in the fourth and fifth weeks of typhoid fever are the result either of the absorption by glands which had hitherto escaped of the putrid discharges coming from above them, or of the destructive ulceration of the secondary lesions. Occurring while the primary fever still exists, such inoculation gives rise to more alarming symptoms than are observed in a true relapse, in which the second seizure is generally mild, probably in consequence of the diminished scope for intestinal mischief resulting from the destruction of so many glands during the primary seizure.

The age and mode of life of the patient have a material influence on the severity and course of typhoid fever.

Age.—As already explained, typhoid fever increases in frequency and severity from the earliest period at which it occurs up to the time at which the vigour and elasticity of the frame are greatest; when that period is passed it begins to descend, and becomes less and less common as years advance, till we find that after fifty it is a rare and not very fatal disease. In this respect it presents a marked contrast to typhus, which so increases in severity and fatality with advancing years that recovery is far from common after fifty, and is scarcely to be looked for at sixty and seventy. The period of life during which typhoid is most prevalent and fatal is that during which the intestinal glands which are specifically affected in that disease are most prominent and active, and that, in its turn, may be said to be the period of activity of the reproductive organs. Typhoid fever is therefore most fatal in early manhood.

The mode of life of the patient has a very important influence on the severity of the attack. All who have seen much of the disease in both hospital and private practice will agree with me that it is more fatal among the better classes than among the poor. Why is this? Hospital patients are not so well nourished, are often the victims of considerable privations, and seldom come under notice till they have been ill a week or ten days; one would therefore be disposed to think that they would be less able to bear up against the disease. I have seen it stated (I do not remember where) that people in the higher ranks do not bear up against such a malady so well as those in a humbler sphere because, being in the daily habit of using a more generous diet and a considerable quantity of wine and other stimulant, they do not so readily respond to stimulants when these become necessary to counteract the depressing influence of the disease. Such an impression I believe to be quite erroneous. A drunkard of course suffers more severely from fever or any other ailment than a temperate man, and is less easily kept up; but such patients are more common in hospital than in private practice. The greater fatality of typhoid fever among the better classes is due to quite another cause. It is due, not to any difficulty in getting them to respond to the action of stimulants, but to a really greater severity of the disease; the malady takes a greater hold of them, and they consequently suffer more from it, independently of all treatment.

We have seen that the glands which suffer in typhoid fever are absorbent, and that their function probably consists in taking up from the chyle something which the system requires for the maintenance of the vigour and elasticity of youth. Now it may be taken for granted that the richer and more abundant the chyle the greater will be the work which these glands have to do. Of course the chyle will be richest in those who live best (*cæteris paribus*), and hence it must happen that the absorbent glands of the better classes of society will be more actively and constantly employed than the same glands in the poorer classes.

It may be regarded as a physiological law that an organ's capacity for work increases with the demands made upon it: frequent exercise increases the size and strength of the muscles; obstruction to the flow of blood from the heart produces hypertrophy of that organ; stricture of the urethra produces thickening of the muscular coat of the bladder; when one lung is in abeyance the other does increased work; cessation of the function of one kidney results in increase in the size and efficiency of the other. So it is with these glands: the richer chyle which passes along the alimentary canal of a man who constantly uses a highly nourishing and stimulating diet supplies more of that substance which it is their function to absorb than does the chyle of a man whose diet is sparing. The continued use of such a diet for a length of time must lead to increase in the size and activity of these glands. The condition thus produced is much more favourable to the development of the poison of typhoid fever than that which obtains in the poorly-fed hospital patient. Should this poison be received into the system of one whose glands are so highly developed there inevitably results a severer attack of the fever than the same poison would produce in one whose glands were smaller and less active. The greater fatality, then, of typhoid fever in the higher ranks of life is the result, not of any difficulties in the way of treatment, but simply of the greater severity of the disease consequent on the more highly developed state of the intestinal glands and the necessarily increased facilities afforded for the growth and reproduction of the contagium in the system, as well as the exaggerated dangers of the local mischief.

Chomel and Forget have both expressed the opinion that debility from destitution is a favourable circumstance as regards prognosis in typhoid fever. According to the views generally entertained regarding the nature of that fever, this statement is little better than a paradox: to say that debility from destitution positively favours recovery from a disease which kills by asthenia is to make a statement which requires the high sanction of such eminent names to prevent us receiving it with scepticism, if not actual incredulity. The explanation just given of the greater fatality of the disease in the upper ranks of society supplies also a reason for its being less fatal among the poor and destitute, and affords evidence of the accuracy of the observation made by Chomel and Forget.

Treatment.—It may readily be supposed that these peculiar views regarding the bowel lesion of typhoid fever have some influence on the treatment which I adopt. They do influence it very materially.

The opinion generally entertained by medical men in this country regarding the treatment of typhoid fever is that it consists in keeping up the strength of the patient, in procuring sleep, and in checking every tendency to diarrhœa. Regarding the desirability of keeping up the strength and of procuring sleep there can be no doubt. To the general treatment I shall not further refer. I wish only to direct attention to the treatment of the bowel lesion. There are two methods of treating this. One is that recommended by Bretonneau and Louis, and adopted by most French physicians: it consists in encouraging rather than checking the action of the bowels. The other is almost universally adopted in this country, and consists in checking every tendency to diarrhœa. Dr. Todd thus summed up the treatment:—"Restrain diarrhœa and hæmorrhage in typhoid fever; and when you have fairly locked up the bowels, keep them so. Patients will go for four or six days, or even longer, without suffering inconvenience from this state of constipation." Such is the treatment adopted in ninety-nine per cent. of the cases of typhoid fever which occur in this country. Dr. Todd's opinion is that of the profession in general.

The treatment proper for the bowel lesion of typhoid fever varies in different cases, and in the same case at dif-

ferent times. To know what is best for the patient, we must know the probable condition of that portion of the bowel which is the seat of disease. The general opinion is, that inflammation and irritation of the mucous membrane, by causing an increased flow of the secretions, produce a tendency to diarrhœa which it is well to check, and if possible prevent. Granting the soundness of the pathology, the treatment is right enough. I hold, however, that the pathology is unsound, and that the practice of "locking up" the bowels is one which leads to a prolongation of the disease, and increases the risk to the patient.

If all the lesions were primary, and if there were no chance of the secondary inoculation of other glands, constipation might be regarded as a favourable sign. The recognition of the occurrence of secondary lesions alters the whole question, and is the true pathological foundation of the treatment which I have to recommend: it supplies, too, a more satisfactory reason than has hitherto been advanced for the success which has attended the French practice.

In the early stages of typhoid fever it must ever be borne in mind that in many cases resolution of the intestinal lesion is possible, and that judicious management during the first ten days may cut short and render comparatively trivial an ailment which the patient's own indiscretion, or injudicious treatment on the part of the physician, may convert into a long and dangerous illness. So long as such resolution is possible, the patient must be treated for that result. He must be confined to bed, and absolute rest and quiet enjoined. It must be borne in mind that some of the glands of the small intestine are inflamed, and consequently more than usually prominent and tender. Under these circumstances, every possible source of irritation to them must be avoided: for this reason no article of diet should be taken which contains much indigestible matter; for the contact of this with the glands on its passage down the gut would only serve to irritate them more. *Physiological rest must also be obtained as far as possible.* For this reason too much nourishment should not be given. The object in view is rest to the affected glands: to attain this object we must give only such articles and such quantities of food as will be digested and utilised in the upper part of the alimentary canal, leaving little or nothing to be done by the inflamed glands. The diet therefore should be mainly composed of milk, given, not *ad libitum*, but in stated quantities and at stated times.

The bowels should be kept as nearly as possible in their natural state. Any tendency to diarrhœa should be counteracted by the addition of lime-water to the milk, and frequently repeated small doses of Dover's powder. Constipation (which is more common in mild cases) is to be obviated by some gentle laxative. I prefer the phosphate of soda to any other; it is not at all irritating, acts very gently, and, having very little taste, is readily taken dissolved in a little warm milk or gruel: from half a drachm to two drachms may be given once or twice a day as required. At this stage of the illness ipecacuanha is very useful: given in small doses—one-fourth to one-sixth of a grain—every two hours, it acts beneficially, not only on the skin, but on the mucous membrane of the bowel. When there is much heat of skin it is best given in the form of wine combined with liquor ammoniæ acetatis. In administering laxatives, it is best to give those which act on the upper part of the alimentary canal.

Such are the means calculated to favour resolution of the bowel lesion.

In all cases after the disease has continued for a fortnight without signs of improvement, and in severe cases at an earlier period of the illness, the hope of attaining such a favourable result may be abandoned. Treatment must now be directed, not to the prevention of sloughing of the glands already involved, but to the prevention, as far as possible, of secondary lesions by the inoculation of glands which had hitherto escaped.

It must be remembered that we have to deal with an intestine in which there are a number of sloughing glands and a number of healthy ones. The liability of the latter to inoculation by discharges from the former evidently depends upon the relative position of the two sets; the higher up the bowel the inflamed glands are situate the greater will be the risk of secondary lesions. It is impossible to tell the exact position of the affected glands. We must act on the supposition, I had almost said the certainty, that there are some glands exposed to inoculation, and do what we can to save them. How is this to be done? Certainly not by shutting up in the intestine the noxious sloughs and discharges. For what is taking place during this quiescent state of the bowels? The sloughs and discharges are being constantly separated from the primary lesions, and the healthy glands situated further down are being exposed to the influence of a poison which has a specific action on them, and which is hourly increasing in strength and quantity the longer constipation exists. By encouraging and keeping up this condition of the bowels we positively increase what we fancy we are guarding against—extension of the bowel lesion. To prevent altogether the formation of secondary lesions is impossible, but it is evident that no means which tend to keep the discharges from the primary lesions in the neighbourhood of healthy glands can have other than a deleterious effect, and that any means calculated to ward off this danger must have for its object the carrying off of the sloughs and discharges as soon as they are separated. Hence the objection to the practice advocated by Todd, and acted up to by most physicians in this country; and hence the reason for adopting the opposite line of treatment. After the inflammation of the primary lesions has gone on to sloughing, the patient's welfare demands that the sloughs should be got rid of as soon as possible; this end can only be attained by keeping the bowels open. If constipation exists it should be overcome by small doses of castor oil, phosphate of soda, or other laxative. Looseness should not be checked unless the stools are so frequent or copious as to affect injuriously the patient's strength. It may be stated generally that so long as there are not more than three stools a day astringents should be withheld. The diarrhœa is not entirely due to the actual lesion of the bowel, but is in part due to the irritation caused by the fetid discharges, which it tends to carry off. It is therefore salutary so long as it is not so severe as to prostrate the sufferer.

Space forbids me to enter on the consideration of the question whether or not the typhoid symptoms of enteric fever are at all due to the absorption of pus or putrid discharges from the bowel lesions. I would only remark that, while they are not due to that cause in every case, it is quite possible for such an accident to occur, and that the recognition of such a possibility is an additional reason for preventing their undue retention within the bowel.

When diarrhœa is excessive it must be restrained, not stopped. For this purpose, acetate of lead, dilute sulphuric acid, liquor ferri pernitratis, or other astringent, with or without opium, may be administered. The liquor ferri pernitratis is particularly serviceable; it is possible that some of its beneficial action may be due to a corrective action on the fetid alkaline contents of the bowel.

The opinions which I have expressed are at variance with those generally entertained; but they are the result of years of careful study of the subject, and of a large experience in the treatment of typhoid fever.

Dundee, January, 1872.

CASES OF LITHOTOMY.

By F. ENSOR, M.R.C.S.

I VENTURE to think that the following cases of operation for stone in the bladder may be of sufficient interest to warrant insertion in THE LANCET; and their having been conducted under somewhat unusual circumstances may serve to encourage other young surgeons placed in similar positions. I may premise that previous to my first operation I had never assisted in a case of a similar kind.

My first case was a Dutch farmer, about fifty years of age, who had been troubled with symptoms of stone for some years. He had consulted several surgeons, with various opinions as to the presence of stone, when he came under my observation in 1865. I sounded him, after having first placed him under chloroform, when the stone was detected. Among the many remedies he had tried was a curious one—viz., the insertion of a mould candle into the rectum whenever he found the pain at the neck of the bladder intolerable. My patient assured me it gave him relief, probably by pushing the bladder contents away from

the sensitive neck. I was bound to tell him that I was a novice at the operation of lithotomy. However, after a few days' consideration, he allowed me to undertake it. At the time appointed I called, and found my patient in a most anxious condition. With great diffidence, I proceeded to operate, four of my brother practitioners being present and assisting me. My patient went on well until the thirteenth day, when the left testicle began to swell, and increased in pain and swelling until matter pointed, when I let it out by free incision. He soon got well, and returned to his farm. Two years afterwards he married.

Case 2 occurred in the person of a lad about eighteen years of age, a waiter at an hotel. The stone was a large, ovoid, flat concretion. He made an excellent recovery, and was able to walk across the ward in the Port Elizabeth Hospital fourteen days after the operation.

Case 3 was that of a man about thirty years; symptoms of stone for seven years; in a very bad condition, and most dreadful suffering. A single stone was extracted about the size of a chesnut, of remarkable and beautiful crystallisation. I have showed this specimen to many surgeons who had never seen a similar one. I intend sending it to Sir Henry Thompson by first opportunity. This patient had a somewhat tedious recovery, but ultimately got well, and is now in good health.

Case 4 was a man who had been a private in the German Legion; symptoms of stone some three years. Extracted two small stones, with facets; recovery complete, and has since become the father of a family.

Case 5 occurred in an infant of some twenty months old. A stone was removed quite the size of a pigeon's egg. Three days after the operation, whooping-cough, then prevalent in the place, supervened, and added infinitely to the risk of life. I found the administration of solution of atropine, *à la* Trousseau, up to the sixtieth of a grain three times a day, sensibly control the violence of the spasm, and the boy made a good recovery.

Case 6 was an intelligent Dutch farmer, aged thirty-nine. Had been operated on some five years previously for stone, by a lately deceased surgeon, when the rectum was unfortunately wounded, and his life became a burden to him, fæces coming through the penis, and urine irritating and being expelled per rectum. For two years previous to coming to me he had been troubled with symptoms of recurrent stone, and in March I sounded him under chloroform, and detected a small calculus. It seems as if the act of sounding had pushed the stone back into the bladder, and gave him so much relief that he doubted the correctness of my diagnosis, and returned to his farm. In July he came into town, his appearance much altered, and not in so favourable a condition for operation. Thinking it possible to crush this stone, I used the lithotrite, but immediately the blades were in the bladder the urine was violently expelled per anum, the bladder completely emptying itself, and impeding the movement of the instrument. He again felt so much relieved by the pushing away of the stone that he hesitated about the operation; however, in September he consented, and I extracted, by the lateral method, a calculus about the size of a nutmeg. I had some difficulty in catching the stone, and had to tilt up the bladder by finger in the rectum before I could secure it; it seemed as if the stone fell back into a pouch, or sacculated part, at the back of the viscus. The stone being removed, I placed my patient on his side, and by a rectum speculum, in a good light, obtained a view of the rectal fissure. It was about an inch in length, and to the left of the mesial line, and two inches within the sphincter. Passing a blunt-pointed bistoury into the perineal wound, I brought it into the old wound of the bowel, and, placing my left forefinger on the end of the knife, brought both out together, cutting all intervening tissue; thus, of course, completely dividing the sphincter. Keeping the speculum in the bowel, I pared the edges of the old wound with a small, sharp, curved knife and forceps; withdrawing the speculum, I passed a curved knife within my finger into the bowel, and divided the sphincter on the opposite side, thereby relieving all tension and spasm, with a view of preventing any fæcal matter being forced up into the bladder. No excessive bleeding, no ligature or styptic required; washed out the bladder, placed a piece of oiled lint in the cut bowel, and gave a subcutaneous injection of morphia. The depression consequent on the somewhat tedious operation was great, but was met by the free administration of stimulants. Seven days after this the bowels were opened for the first time without the aid of medicine or enema, no particular pain attending the evacuation.

Oct. 5th.—Wound much contracted; held his water for eight hours; dressed, and lying on the sofa.

7th.—He most imprudently left his room, and walked up a long staircase; had a bad night; pain in left kidney and right testicle; pulse quick; skin hot; nevertheless wound looks well, and patient micturates freely. Ordered mustard poultice to loins; castor oil, and bicarbonate of potash, with morphia solution.

8th to 10th.—Suffered much pain in the loins; urine clouded; pulse quick; much depressed; pus comes per urethram and by the wound.

20th.—Urine has cleared of late; bowels free, and act without pain; urine comes both ways. Injected weak zinc lotion into the wound.

26th.—Urine clear, comes both ways; external wound contracted to a minimum; appetite and appearance good.

Nov. 3rd.—Has been doing well, and moves gently about the garden.

10th.—Kidney pain troublesome again; pain supervened in neck of bladder; severe for one night.

15th.—Passed a stone two inches long, and about as thick as a slate pencil; much relieved; bladder quiet; urine passes freely per urethram, but on examination per anum can feel the wound of the rectum still patent; external wound healed.

25th.—Under chloroform I examined the rectum, and found the wound still open, and about an inch in length. Not possessing needles sufficiently sharp in curve, I could not apply a ligature in such a small space as the rectum speculum afforded. Again pared the edges of the rectal wound, and, introducing a staff with medium groove into the bladder, passed the knife on finger into rectum, and cut up through the sphincter, the knife being in the groove of the staff. Fixed a No. 8 silver catheter in the bladder.

28th.—Removed catheter and replaced it; it causes a good deal of distress.

29th.—Could not bear the presence of the instrument, and removed it himself in the night.

Dec. 8th.—Has been able to keep a No. 8 gum-elastic catheter without stilette in since last date.

10th.—Chordee troublesome, causing catheter to come out, which he replaced himself.

15th.—Keeps catheter in during the day and removes it at night; is learning to use the instrument himself.

Soon after this he went home, with directions to empty the bladder by the instrument when required. These operative procedures were undertaken about three years ago. No fæces have ever passed per urethram since the last operation. A little urine still comes occasionally by the bowel, but does not trouble him. My patient called on me a short time since, looking well, and assured me he had ridden eighty miles in one day *en route* for the diamond fields—a severe test as to the soundness of his perineum.

Case 7.—I operated on this patient a short time since. He had been suffering from bladder symptoms for some few years, and had been under treatment for stricture. An elongated stone, very loose in structure, was removed, fortunately without a fracture, but breaking up immediately by being somewhat roughly handled. Some three weeks after operation, the external wound being nearly closed, intense kidney pains came on, continuing for ten or twelve days. Matter was poured out per urethram, and one day, after a hot hip bath and several doses of buchu, tea, and hot gin-and-water, a long kidney calculus was ejected into the orifice of the penis, and removed by the patient himself with perfect relief to all his pain. A quick recovery followed, tincture of perchloride of iron seeming to expedite matters very much at the close.

Stone in the bladder cannot be said to be a common affection in South Africa, although hæmaturia as an endemic disease is very common in and about Port Elizabeth. In a village about twenty miles inland, where I resided three years, hardly a male child grows up, say to seven years of age, but he passes blood in his urine. Females are seldom or never affected. I have never seen a white female child affected in a similar manner. Dr. J. Harley, who has, I believe, paid some attention to the fact, declares it to be due to the parasite Distoma hæmatobium, which finds its

nidus in the urinary tract. Calculi formed in and passed down from the kidney are very common; the pain which accompanies the descent of the calculus is very severe and distressing. After much experience of this affection, I find the best plan of treatment is by hot hip baths, copious enemata of hot water, mustard or cupping to loins, free action of purgatives to clear the colon, and then the free exhibition of morphia, with which I have combined belladonna with excellent effect. Stones occasionally stick in the urethra, and give rise to much additional pain and anxiety. Considering the frequency with which I have had to treat nephralgia calculosa, the presence of stone in the bladder is rare.

Provincial Hospital, Port Elizabeth, South Africa, 1871.

A SAFETY HYPODERMIC SYRINGE.

BY W. R. GOWERS, M.D.

RELUCTANCE is often felt to trust the ordinary hypodermic syringe in the hands of a patient or a nurse, on account of the facility with which an accidental overdose may be administered. This danger may be completely avoided by a slight addition to the ordinary syringe which Mr. Hawksley, of Blenheim-street, has made for me. It consists of a stop placed upon the piston-rod within the barrel, and moving up and down the rod by a screw. This stop prevents the piston from being drawn up beyond a certain distance. Thus the maximum capacity of the syringe may be fixed at any desired quantity, and may be altered by unscrewing the collar of the syringe, drawing out the piston-rod, and altering the position of the stop. The syringe being thus set for a given dose, not more than that dose can, by any accident, be given at one injection.

Queen Anne-street, Jan. 1872.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum, tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

WESTMINSTER HOSPITAL.

ESCAPE OF A TRACHEOTOMY-TUBE INTO THE TRACHEA, OWING TO EROSION OF THE JUNCTION OF THE TUBE AND SHIELD; REMOVAL BY ENLARGING THE ORIGINAL OPENING.

(Under the care of Mr. HOLTHOUSE.)

WE are glad to lay before our readers (from notes by Mr. R. C. Pritchard, assistant house-surgeon) the full particulars of the following case, which forms an interesting sequel to the similar one read by Dr. John Ogle at a late meeting of the Medico-Chirurgical Society. We particularly recommend instrument makers to profit by the lesson contained in these two cases, and to adopt the hint thrown out during the debate on Dr. Ogle's case, of making the tracheotomy tube and its shield "one and indivisible."

R. W——, a man aged forty-five, had laryngotomy performed by Dr. Morell Mackenzie on February 14th, 1868, for dysphagia and dyspnœa. He wore the same tracheotomy tube till the 16th November, 1871, when, whilst taking his tea, he was suddenly seized with a violent fit of coughing; and on putting his hand to his throat he found slight bleeding. The tube had broken through at its junction with the shield and fallen into the trachea. He immediately went to the Westminster Hospital.

On admission there was at first urgent dyspnœa; the countenance was congested and anxious; but on lying down the difficulty of breathing disappeared and respiration was easy. Mr. Holthouse, having been sent for and shown the shield, auscultated the chest, when the respiratory murmur was found to be scarcely appreciable on the left side, but rather exaggerated on the right, though no detectable difference was observed between the movements of the two sides of the chest, and percussion was clear on both sides.

The opening in the crico-thyroid membrane was enlarged to the extent of one inch or more in the following manner:—The skin was first divided in the middle line with a scalpel; then one blade of a strong blunt-pointed pair of scissors was introduced through the opening in the larynx, and the cricoid cartilage and two or three of the upper rings of the trachea were divided by successive strokes of the scissors, though with some difficulty, owing to their being ossified. There was but little bleeding; and, after it had ceased, a bullet-probe was passed downwards through the wound till it touched the canula, which was found lodged just above the left bronchus. A long pair of forceps was then introduced, but, as it failed to grasp the tube, and excited violent coughing, it was at once withdrawn. The patient was then placed prone, and the lower part of the trunk being elevated, the back was sharply slapped. This dislodged the tube, and brought it up to the opening in the trachea. After some difficulty (owing to the ossification before alluded to) the sides of the wound were forcibly separated by means of retractors, and the tube was then grasped by a pair of polypus forceps and withdrawn.

The patient had no unfavourable symptoms, and, having been supplied with a new tube, was discharged after a fortnight's sojourn in the hospital.

GUY'S HOSPITAL.

IN our Mirror of last week will be found a few general observations by Dr. Wilks on the employment of alcohol as a medicine. We this week supplement those remarks by a rather more detailed account of the views of that physician on this important subject. For our own part, we would much rather take Dr. Wilks's "mistura alcoholica" than the fiery, astringent, adulterated trash which is often honoured by the name of "wine" in many of our hospital dietaries.

The Administration of Alcohol.—Dr. Wilks, for the purpose of watching more closely the effects of alcohol on the system, has for many years prescribed a medicine which he calls "mistura alcoholica," composed of rectified spirit, tincture of cardamoms, and water, to be given at intervals during the day. But it is only in a particular class of cases that it is applicable. For the various ordinary acute and chronic disorders he has used wine and brandy when he has considered them necessary. It has been more especially in cases of atrophy in children and in tuberculosis that he has used this form with the most beneficial results. He believes that he was indebted many years ago to Dr. Sutton (now of the London Hospital) for this method of administering alcohol, and he has continued to use it ever since with very often marked success. When physician to the Royal Infirmary for Children, Dr. Wilks often prescribed small doses of rectified spirit, according to the above formula; but, unfortunately, there is no record of the results. He remembers one case, of a little boy who was said to have marasmus. He lay in bed almost a skeleton, and had taken all kinds of nourishment, with cod-liver, oil in vain. He was then ordered small doses of alcohol four times a day, and rapidly improved, so that in a few weeks he was fat and strong.

Dr. Wilks says he must leave it to the physiologists to determine the action of alcohol in the system; but from the fact of its not being eliminated, and from persons growing fat who partake of it, he has never discarded Liebig's views; certain it is that wasted children often directly improve under its use.

At the present time there is a little boy, aged five years and a half, in Guy's Hospital, under Dr. Wilks's care, who is on this plan. He was admitted in an extreme state of emaciation on Oct. 25th. No disease could be found in him, and he was handed over to the sister of the ward to take charge of, as it was thought his ailments might be due merely to starvation. In spite, however, of good living, with a little wine, he did not improve, and therefore, after being in for about six weeks, on Dec. 15th he was ordered one drachm of rectified spirit four times a day. In a few days he was better. He was soon able to leave his bed, and he has been growing fatter and stronger ever since.

We have been favoured with the following interesting account of a post-mortem by Dr. Moxon:—

Polypoid Tumour of the Larynx, stopping the œsophagus; senile organs.—A man, aged sixty-five, a cabman, was in Guy's Hospital, suffering from difficulty in breathing and swallowing, with progressive emaciation. He had to be fed by the œsophagus tube. Laryngoscopic examination showed a growth, apparently occupying both pharynx and larynx. The dyspnœa became intense, and tracheotomy was performed. He lingered a month after this to reach the last stage of emaciation, and slowly sank.

The post-mortem examination, by Dr. Moxon, showed a growth, of the size of a chesnut, attached by a narrow root to the right aryteno-epiglottidean fold, and contriving so to place itself that it lay over the larynx during the effort to breathe, when the pharynx was at rest, while it stopped up the œsophagus during the attempt to swallow. In this way:—We need not say that the second stage of deglutition includes two movements for the protection of the larynx—first, the larynx itself is carried upward and forward, and, second, the root of the tongue is carried backward, the two motions combining to place the larynx under the root of the tongue, while the food passes back and down on its course. It will easily be seen that the movable mass attached loosely between the tongue and larynx had its root drawn up with the larynx, while its body was pushed back by the tongue so as to stop the passage of the food into the pharynx. The growth was an adenoid epithelioma. It was interesting to notice that, emaciated as the man was, his death had been determined by an attack of pneumonia. He had not died out simply. We usually find, both in very aged and very wasted persons, the full tale of morbid products, as though it still took as much as ever to kill them. The pneumonia was a purulent infiltration, with patches of gangrene—an intense pneumonia, the severity of its results being partly due to the extreme reduction of the patient; but another cause showed itself, for a piece of one ring of the trachea in the wound was ossified and dead, so that it separated at a touch. The ichor from this necrosis, no doubt, had conveyed down the trachea a like severe necrotic change. One was struck with the fact that his heart still weighed ten ounces and a half, whereas to correspond with such emaciation it should not have weighed more than five and a half or six ounces. The cause for this anomaly was found in the state of the kidneys. These were granular to a severe degree, being much wasted, so that the largeness of the heart was, in fact, a relative hypertrophy of the sort common in this renal disease. In the middle of the thoracic aorta (its hinder side) were several firmly-attached smooth masses of fibrine, shaped like shrunk-up garden slugs, quite decolourised, and evidently of old date—a point worth attention, as proving that the equivalent of cancer of the œsophagus is the proper cure for aneurism, seeing that it can produce firm fibrine in the open channel of the aorta. That the stomach was ready to use food, if it could get it, was proved by its having dissolved its own mucous coat, and containing highly acid mucus. The liver was like an old man's liver in one interesting particular, which has not been much noticed, we believe. This was that its anterior part in contact with the ribs was very hard, while its posterior part, which rests against the diaphragm and lung, was comparatively quite soft and natural. This hardness of the front edge of the liver in older people surely represents the effect of the exposure of this part of the organ to trifling mischances of various kinds—hard breathing, casual pressure, tight trowser-bands, &c. Often one sees on the left lobe, under and corresponding to the heart, a roundish patch, where the capsule is thickened and depressed. This patch registers in a similar way the extent of direct mechanical injury which the liver has sustained from the life-long beating of the heart. No gout was present, and the wasted muscles had the usual dark-brownish tinge.

SEAMEN'S HOSPITAL, GREENWICH.

A CASE OF PYO-THORAX.

(Under the care of Dr. REGINALD THOMPSON.)

WE last week recorded an interesting case in which Dieulefoy's aspirator was used for the purpose of diagnosing a supposed abscess of the liver. The following illustrates in some degree the comparative value of this and of other instruments in removing fluids from the pleural cavity.

Chas. G——, aged forty-three, was admitted on Dec. 2nd with such physical signs and general symptoms as to lead, with little doubt, to a diagnosis of a large amount of pus in the left pleural cavity. The disease, from the history, was apparently of three weeks' duration.

Two days after his admission the chest was tapped by Mr. Johnson Smith in the seventh interspace, in a line with and close to the lower angle of the scapula. Dieulefoy's aspirator with a small trocar was used, and forty-four ounces of inodorous healthy pus were withdrawn by the syringe. During the operation the patient lay upon his right side; he coughed frequently, and exhibited occasional symptoms of distress. The wound was dressed with medicated oakum, and healed completely in three days.

After the operation the physical signs improved, but the chest filled again, and in seven days it was found necessary to tap him a second time. On this occasion a trocar and canula, with an elastic tube under water, were used; twenty-three ounces of inodorous pus were removed, and the operation was followed by a further improvement of the physical signs.

On the 18th December, as the pus was evidently pointing between the ninth and tenth ribs in front, a third operation was performed by Mr. Smith with an ordinary trocar and canula, and forty ounces of inodorous pus were discharged. There was subsequently resonance on percussion over the front of the left side of the thorax. A drainage-tube was introduced and left in the wound. On the 23rd a pericardial friction-sound was heard. The pus continued to flow, but was very fetid. Vesicular breathing continued to be heard over the same extent of chest as before, both anteriorly and posteriorly; and the general condition of the patient was satisfactory. But on the 29th his friends insisted on his removal from hospital, and he was discharged contrary to advice.

The three instruments were used successively in this case in order to test the comparative value of the aspirator. The result was satisfactory, in that no admission of air took place; but the *modus operandi* did not appear to possess any special advantages, and during the first operation some amount of coughing and uneasiness occurred.

RADCLIFFE INFIRMARY, OXFORD.

CASE OF PELVIC HÆMATOCELE.

(Under the care of Dr. TUCKWELL.)

A. T——, aged thirty, admitted November 27th, 1871, with the following history and condition:—She has had four children, the youngest born two years ago, and suckled for eighteen months. Catamenia first reappeared eleven weeks ago, and have been profuse, lasting nine weeks. On the second day of their appearance she was suddenly seized, while sweeping her cottage, with severe pain in the lower part of the belly, on the left side, which was followed in a few days by the formation of a painful swelling in the same part. She was now confined to her bed, suffering from a constant bearing-down pain in the lower part of the body; from a frequent desire to pass water and difficulty in doing so; and from an irritable state of the bowels, each action being loose, but scanty and constrained. At the end of two or three weeks the painful swelling on the left side of the body subsided a little, and a similar swelling began to form on the right side, with increase of suffering and frequent vomiting. She is now in the twelfth week of her illness.

The lower two-thirds of the abdomen were distended by two large prominent swellings, occupying respectively the right and left iliac and lumbar regions, and encroaching on the hypogastrium. That on the right side was elastic, resisting, and exquisitely tender, yielding on percussion a muffled tympanitic sound; that on the left was softer and more tolerant of pressure, and loudly tympanitic. Directly above the pubes, and extending into both iliac regions, more to the left than to the right, was a hard mass which could not be followed far with the hand, but was lost on either side beneath the more prominent swellings; it was

very tender on pressure, and dull on percussion. Her pulse was frequent and feeble; her temperature 100·6° Fahr.

The uterus was found, on vaginal examination, to be pushed downwards and forwards against the pubes, its fundus anteverted by a large swelling which was situated behind the uterus, and thence extended upwards and laterally so as to fill up the greater part of the pelvis. This tumour was tense, resisting, but somewhat elastic to the touch, smooth on its surface, and very tender on pressure.

On Dec. 6th, nine days after admission, the swelling on the left side had subsided; that on the right was smaller, though still very tender. Her pulse had fallen from 120 to 80; her temperature was 98°. On vaginal examination, the pelvic swelling was decidedly smaller; that part of it more particularly which lay behind and to the right of the uterus was receding, so that the uterus itself was less displaced.

On Dec. 16th all pain had ceased. The mass above the pubes could not be felt. The swelling on the left side was gone, and there remained only a deep-seated resistance on the right side, where the percussion note was less full than on the left side. On vaginal examination, the uterus occupied its natural position; a small mass of induration in the position of the left ovary alone remaining of the original pelvic swelling.

She left the infirmary convalescent on Jan. 3rd, 1872. No recurrence of menstruation had taken place during the time she was under treatment.

The treatment consisted of careful nursing and dieting, the application of linseed poultices to the abdomen, and small doses of Dover's powder to relieve the frequent and irritable action of the bowels.

The following are the points which indicate that this swelling was due to an effusion of blood, and not to products of inflammation or abscess:—1. The occurrence of the attack not in connexion with the puerperal state, but on the second day of an unusually severe menstrual period. 2. The sudden onset of the pain during active muscular exertion, and the rapid way in which signs of abdominal swelling and symptoms of peritonitis followed. 3. The condition of the abdomen, where was manifest evidence of peritonitis, more extended and reaching higher than would be expected in pelvic abscess. 4. The situation of the pelvic swelling in Douglas's pouch, as well as on either side of the pelvis. Lastly, the rapidity with which so large a swelling was absorbed and removed strengthens materially the opinion originally formed as to the nature of the disease.

With regard to the seat of the blood, the effusion was here seemingly in the peritoneal cavity. This may be inferred from the extent of peritonitis and from the way in which the vaginal tumour was apparently limited below by Douglas's recto-uterine fold of peritoneum. As to the source of the hæmorrhage, it is probable that, during an excessive menstrual flow, the blood escaped into the peritoneal cavity either from a Graafian follicle of the left ovary or from an over-distended and ruptured Fallopian tube. The other causes of these pelvic hæmorrhages in women may be excluded in this case. From the birth of her last child, two years ago, there had been no return of menstruation before the period in which she was attacked, so that there can have been no fœtus-containing cyst of extra-uterine pregnancy to rupture. Nor is it likely that in so young a woman a varicose vessel in the pampiniform plexus can have burst. Neither in the legs nor in the labia was there evidence of varicose veins being present—a point to which Bernutz draws attention as furnishing a clue to diagnosis in these cases. Again, there was no closure of any normal outlet for the blood, and, therefore, no reason for suspecting any regurgitation of menstrual blood through the Fallopian tubes. The woman was menstruating freely at the very time when she was attacked. In conclusion, the distinct reference of the first pain to the left side of the abdomen in its lower part marks this as the side on which the blood was first extravasated.

THE contributors to the Sick Children's Hospital, Edinburgh, held their thirteenth annual meeting on the 16th. The report stated that the hospital is now free of debt and capable of receiving 72 patients. The number of children treated in the hospital during the past year was 503, while the number of out-patients was 4927, making a total of 5430.

Medical Societies.

OBSTETRICAL SOCIETY OF LONDON.

WEDNESDAY, JAN. 3RD, 1872.

DR. BRAXTON HICKS, F.R.S., PRESIDENT, IN THE CHAIR.

THE following gentlemen were elected Fellows of the Society: Dr. Bridgwater (Harrow), Dr. Fox (Birmingham), Dr. Gardner (Montreal), Mr. W. Harding, Dr. R. H. Hilliard, Mr. E. M. James (Melbourne), Mr. Jalland (Horncastle), Mr. J. Lattey, Mr. D. B. Rankin (Melbourne), Dr. Vanderstraaten, and Dr. W. C. Wise (Plumstead).

Dr. BANTOCK exhibited a specimen illustrating the changes which take place in the pedicle of an ovarian tumour when treated by ligature. The specimen had been obtained at a post-mortem examination performed twelve months after the operation. When the parts were exposed, no trace of the pedicle could be seen, and the upper border of the broad ligament formed a continuous line with the fundus uteri; but close to its edge could be felt a small body the size of a hemp-seed, covered by peritoneum, and about an inch and a half distant from the uterus. The hard body was found to be formed of the knot of the ligature, the loop and ends having disappeared. Dr. Bantock referred to the experiments of Spiegelberg and Waldeyer on this subject, and said that the course of events would appear to be as follows: When the ligature is applied, it forms a deep constriction, which, by the bulging of the tissues on each side, causes the living to come in contact with the strangulated tissues; plastic lymph is thrown out, gluing together the opposing surfaces, and its organisation establishes a vital connexion between the two, so that sloughing is prevented. In course of time the loop ceases to exert any force, and it is probable that the capillaries ultimately become pervious. Subsequently the absorbents begin their work, and remove not only such portions of the tissues as are unable to maintain their integrity, but the ligature itself yields to the forces at work. Dr. Bantock considered that the extra-peritoneal method by the clamp was the best mode of treating the peduncle; still this case demonstrated the safety of the ligature.

Dr. PLAYFAIR read a paper on the Treatment of Empyema in Children. The author described the peculiarities of pleurisy in children as contradistinguished from the same disease in the adult. He then referred to the change of opinion which had of late years been observed with regard to the operation of paracentesis. This operation in ordinary serous pleurisy evidently stood on a very different footing from the same operation in empyema. In the former we only sought to relieve the distension by removing some of the fluid and allowing the remainder to be more readily absorbed, while in the latter the chance of absorption was diminished to a minimum; and it would be a great gain if we could effect continuous drainage of the pleural cavity, and at the same time effectually exclude the entrance of air. The author then described the method of drainage by Chassaignac's tube, with illustrative cases. He then described the method of cutaneous subaqueous drainage advocated by himself, and related the history of three cases successfully treated by it. The results of these were very satisfactory, and contrasted remarkably with the cases treated by pneumatic aspiration by Bouchut. The paper was illustrated by drawings of the chests of five children, taken by Dr. Gee's cystometer, which showed how much greater the chest deformity was when air had been allowed freely to enter the pleural cavity.

Dr. HILTON FAGGE felt bound to mention to the Society that he had recently had a case in which the same method had been employed, and with results not entirely so satisfactory. The pus had, in this instance, made its way by the side of the india-rubber tube, and continued to discharge. It was of great importance that the tube should be tightly grasped by the skin, and for this reason it was better to remove the canula before introducing the india-rubber tube, which should be of the same diameter.

Dr. F. T. TAYLER mentioned a case of empyema treated in a similar manner. The chest was tapped with a syphon trocar. An india-rubber tube was affixed to the canula and carried into a basin of water. The canula and the tube

were retained twenty-four hours, and then a piece of elastic catheter, with a smaller india-rubber tube, was inserted through the canula, which was withdrawn. The tube was retained for fifteen days.

Dr. SEDGWICK approved very much of the plan of subaqueous paracentesis. He had himself occasionally during the last fifteen or sixteen years carried out the same principle. He had used a canula, the tube of which projected externally and much beyond the shield, on which he slipped a long india-rubber tube with the other end dipping into a dish of water. The plan of introducing the india-rubber tube into the chest was much better than leaving the canula in. Dr. Sedgwick had adopted the same plan in a case of paracentesis abdominis, where the patient was very weak and the abdominal walls were as thin almost as parchment. The rapidity of the flow was entirely under control by means of pressure on the tube.

This being the annual meeting of the Society, Dr. GRAILY HEWITT said that he had much pleasure in proposing to the Society a very important resolution, to the effect that the Society should at once institute an examination for midwives. The Council began seriously to consider the subject while he had the honour of holding the office of President, and the proposed plan was the result of the continuous and matured consideration of the matter by the Council. The plan recommended involved the institution of an examining board, composed of six Fellows of the Society; the examination, to be held quarterly, to consist of a practical testing of the competency of the candidates to practise as midwives, and the possession on their part of such an amount of knowledge as would enable them to recognise the presence of difficulties, and the necessity for at once procuring competent professional aid for their patients. It would hardly be necessary for him to dilate on the great ignorance and incompetency of vast numbers of practising midwives, nor of the loss of life which thus resulted. The attention of the Society had been forcibly drawn to that in the reports on the subject of infantile mortality, procured recently from London and the provinces. It might possibly be said that the institution of such an examination was the duty of the Government, or of the Royal College of Physicians or Surgeons, or of the Society of Apothecaries. He was afraid that little was to be expected from Government action at present, though ultimately it might be hoped that this action of the Society would result in legislation on the subject. Nor was it to be expected from the general medical bodies. Under the circumstances, the Society proposed to step forward to initiate what was, he believed, universally admitted to be a laudable object; one, indeed, of pressing necessity. The Society was instituted for the promotion of knowledge in all that relates to obstetrics and the diseases of women and children. This examination would, he felt sure, do very much practically to carry out that great object.

Dr. ROUTH seconded the proposition. He stated that his first impression was that this measure belonged more to some college than to the Society. On reflection, however, and judging from the long delay that the colleges would not take it up, he thought some other learned body ought, and, if so, what body better qualified than the Obstetrical Society. Dr. Routh then referred to the large number of lives lost through the ignorance of midwives, and to the advantages which would result from having well-educated ones. He could speak with praise of some educated by Dr. Hall Davis. Again, strong-minded women were on the increase, and sooner or later many would be found in the ranks of the profession. He only hoped, when they were in it, they would be found as worthy as the two French ladies whose names would be handed down to posterity with honour. He alluded to Madame Boivin and Madame Lachapelle. But if the better class of strong-minded women entered our ranks, we might rest assured that they would find imitators in a lower class, which would invade the province of midwifery. If so, it was important to test more accurately their knowledge; and, certainly, this Society could do it well.

The motion was supported by various speakers, and was carried *nem. con.*

The reports of the Treasurer and the Librarian were read, and the President delivered the annual address. The ballot for election of officers then took place, and the following gentlemen were declared to be duly elected:—Hon. President: Sir Charles Locock, Bart., M.D. President: Dr. J. Braxton Hicks. Vice-Presidents: Mr. John Clay (Birmingham), Dr. H. Gervis, Dr. H. M. Madge, Dr. G. C. P. Murray, Dr. D. Ll. Roberts (Manchester), and Mr. John Scott. Treasurer: Dr. Tilt. Hon. Secretaries: Dr. W. S. Playfair and Dr. J. J. Phillips. Hon. Librarian: Dr. A. Wiltshire. Hon. Members of Council: Dr. Tyler Smith, Dr. Oldham, Dr. Barnes, Dr. J. Hall Davis, and Dr. Graily Hewitt. Other Members of Council: Dr. J. H. Aveling, Dr. J. W. Black, Dr. John Brunton, Mr. Brendon Curgenven, Mr. J. Fowler (Wakefield), Mr. G. Gaskoin, Dr. S. Day Goss, Mr. T. T. Griffith (Wrexham), Mr. D. E. Image (Bury St. Edmunds), Mr. J. R. Kirkpatrick (Dublin), Dr. D. Mackinder (Gainsborough), Dr. J. B. Potter, Dr. Adolph Rasch, Dr. W. R. Rogers, Dr. Henry Savage, Dr. L. W. Sedgwick, Dr. Heywood Smith, and Mr. H. W. Sharpin (Bedford).

CLINICAL SOCIETY OF LONDON.

FRIDAY, JAN. 12TH, 1872.

DR. GULL, PRESIDENT, IN THE CHAIR.

Mr. LAWSON read the fourth annual report of the Society, which was, in all respects, highly satisfactory, and bore testimony to the advancing prosperity of the Society, both in the increased number of its members and in the work accomplished. The Treasurer (Dr. Greenhow) next read the financial statement, the main and most satisfactory feature of which was the fact that a balance in favour of the Society of £249 remained. It was resolved that £200 of this sum should be invested in the Three per Cent. Consols in the joint names of Dr. Greenhow, Dr. Burdon Sanderson, and Mr. Callender. A vote of thanks was cordially proposed to the retiring officers and members of the Council, and the ballot was then opened for the election of new officers with the following result:—President: Dr. Gull. Vice-Presidents: Dr. T. K. Chambers, Dr. Owen Rees, Dr. Burdon Sanderson, Dr. A. P. Stewart, Mr. Callender, Mr. J. Cooper Forster, Mr. Henry Lee, and Mr. Campbell De Morgan. Treasurer: Dr. Headlam Greenhow. Council: Drs. James Andrew, W. H. Broadbent, William Cholmeley, E. Clapton, Langdon Down, A. B. Duffin, Hughlings Jackson, John C. Langmore, Alfred Meadows, Sydney Ringer, and Samuel Wilks, Messrs. Henry Arnott, Richard Barwell, T. Bryant, John Croft, Berkeley Hill, Carsten Holthouse, W. B. Kesteven, Septimus W. Sibley, and Alfred Willett. Hon. Secretaries: Dr. Buzzard and Mr. G. Lawson. Trustees: Dr. Greenhow, Dr. Burdon Sanderson, and Mr. Callender.

Mr. BRUDENELL CARTER then proceeded to read a paper on a case of Paralysis of the External Rectus Muscle treated by tenotomy and localised faradisation. The patient was thirty-three years of age, apparently in good health, with no history of syphilis or of any disorder of the nervous centres. She applied at St. George's Hospital on May 16th, 1870. The left eye was then so much rolled inwards that only the outer third of the cornea was visible, and was almost immovable in this position. The patient had been in the same condition for more than five months, and she ascribed her malady to some rough usage from her husband. She was ordered to take thirty grains of iodide of potassium daily, and this was continued for nine weeks; at first with very slight benefit, which reached its limit at the end of three weeks. On July 19th the tendon of the left internal rectus was divided, and localised faradisation with the primary current of a Stöhrer's battery was afterwards regularly applied to the external rectus twice or three times a week, by a pair of small rheophores designed for the purpose and exhibited to the Society. Under this treatment the muscle gained sufficient strength to roll the eye to the middle of the palpebral opening when the other eye was closed. On November 22nd, no further progress having been made, both internal recti tendons were divided, with the result of completing the cure. The eyes were movable to the normal extent in all directions, and retained their parallelism in all positions, no trace of any squint remaining. Mr. Carter said that he had been led to devise this method of treatment in consequence of the very imperfect results obtained from operations for shortening or readjustment of the paralysed muscle. The patient was introduced to the Society.

Dr. J. W. OGLE thought that the interesting feature of the case was the question as to the cause of the paralysis.

Paralysis of the external rectus was not uncommon from the most trifling causes, as, for example, indigestion. It might occur (in the female) during suckling.

Mr. HOLTHOUSE remarked on the perfect recovery of contractile power in the external rectus, as evidenced by the complete motor power which the patient had over the eye. Had the plan of cutting a piece out of the paralysed muscle been pursued he could understand that the shortening of the muscle so brought about might have the effect of pulling the eyeball to its normal position; but that procedure could not, as in this case, have any effect in restoring the motor power of the muscle.

Mr. LAWSON, *apropos* of the pathology of the paralysis, remarked that syphilis was a frequent cause of paralysis of the muscles of the eyeballs, but paralysis of the external rectus was more often due to trifling reflex causes than was the case with the other muscles, because of the intimate relations which existed between the sixth and the sympathetic nerve.

Dr. ALTHAUS agreed with Mr. Lawson. In his experience paralysis of the external rectus was often due to cold. He had often applied faradisation for the relief of cases like the one under discussion.

Dr. GLOVER asked if Mr. Carter had used the subcutaneous injection of strychnine in cases like this.

Mr. CARTER, in reply, said that he himself had been in much doubt as to the cause of the paralysis. He would remark that it was of five months' duration, and therefore could not be looked upon as due to any passing cause. Further, as the patient had taken large doses of iodide of potassium for nine weeks without relief, he considered that syphilis was out of the question. In applying the faradisation, he had followed the advice of Duchenne, and had gone as close to the affected muscle as possible. He had never employed hypodermic injections of strychnine.

Dr. JOHN W. OGLE read a paper "On the Temperature in Certain Affections of the Nervous System, and especially in Tetanus." Dr. Ogle first alluded to a case of traumatic tetanus which he had described to the Clinical Society the previous session (which had recovered under the use of chloral, belladonna, wine, ice to the spine, &c.), and which had exhibited tolerably regular or periodic daily variations of a remarkable kind in the heat of the body—variations not corresponding by any means with pyrexia, with any rise in the frequency of respiration, or of the pulse, and having no apparent relation to the food taken, the degree of sweating, or the amount or force of muscular spasm. He then described other cases of tetanus in which the evening temperature had been found to be remarkably high compared with that of the morning. Of these, one was a case which he had received from Dr. Keen, of Philadelphia, in which, out of fifteen days that the temperature was taken, there were nine in which the evening temperature was much higher than that of the morning, being in several instances more than 1½°, and in some cases 2° higher; the pulse being the while often as low as 60 per minute. A second case was one sent to him by Mr. DIXON, of Preston, in which, during six days that the temperature was taken, there was a great evening increase of temperature over that of the morning, being on one occasion nearly 3° higher. A third case was one recently published by Mr. Poland; and a fourth one published by Mr. Croft in THE LANCET for November 4th last. Dr. Ogle did not consider that the great nightly exaltation of temperature was attributable to remedial agents used, though he recognised the fact that certain agents notably affected temperature, and quoted numerous instances in which it had been demonstrated experimentally both on man and animals, that temperature could be both increased and diminished, instancing (and giving authorities) the decrease of temperature from chloral, bromide of potassium, quinine, digitalis, alcohol, mercury, lead, &c., and quoting experiments in which nicotine, curare, strychnia, vomica, veratria, quinine, and phosphorus were injected into the veins of animals. Examination of the results of such experiments and trials showed very great diversity and discrepancy, and Dr. Ogle suggested that research into the action of agents (both in health and disease) in modifying temperature might well and fitly be undertaken by the Clinical Society, and would prove a field worthy in every way of their cultivation. He alluded to the observations which his friend Dr. FOX, of Clifton, was engaged in on this subject. Referring to the modifications of temperature of tetanus, and to the possibility of the existence of variations in these modifications, according to the character and nature of the tetanic attack, Dr. Ogle remarked that it would be a question whether such variations have any relation to vascular changes in the spinal cord, or to such textural changes in the central nervous system as have been observed in certain fatal cases of this disease by Rokitansky, Wedl, Wagner, Demme, Fleckner, Eisenmann, Oppolzer, Wunderlich, and, more recently, Clark and Dickinson. Dr. Ogle said he thought it was a matter of consideration how far such histological changes were due to vascular congestions or to increased blood-temperature induced in the course of the disease. In connexion with the high temperature of tetanus, he alluded to the views which had lately been promulgated, especially in Germany, as to the condition termed fever—a condition which was supposed to result from an unwonted state of the central nervous system, by Wunderlich, Virchow, and many others. He specially drew attention to the researches of Tscheschichin, who looked on fever as the result of a morbidly increased activity of the spinal centres in consequence of a weakening or paralysis of the moderating portions of the brain, by which a number of chemical processes are increased to an extent which is never attained under normal conditions of the functions of the brain. He observed that, whatever part the central portions of the nervous system may play in the increase of temperature in disease, we must of course allow that the vasal nerves, as well those which contract the vessels as those which actively dilate them (if such there be), are intimately concerned, and that an arrest of the natural loss of heat by radiation may lead, by causing its accumulation, to an increase of general temperature as much as an actually and positively increased production of heat. Dr. Ogle then alluded to other cases ordinarily looked on as non-pyrexial, in which the evening temperature was very much higher than that of the morning; for example, those of diabetes, published by Dr. Foster, of Birmingham. (The examination of temperature in cases of diabetes by himself had given different results). It was to be remembered that in many cases of diabetes the central nerve-structures were at fault. He alluded to cases of meningitis in which the exceedingly high temperature was noted; one noticed by Dr. Bradbury, of Cambridge; also to cases of general paralysis of the insane, for which he was indebted to Dr. Mickle, of the Derby Asylum; and finally, to a probably exceptional case of chorea which he had lately treated, and in which the temperature for twenty-one days was noted morning and evening, the latter being almost always much higher than the former. Dr. Ogle referred to the great importance which the thermometer, as supplying a measure of expenditure of nerve-force and tissue-waste, was assuming in our clinical wards, thus competing with the stethoscope, microscope, and test-tube. He hoped shortly to have the opportunity of offering to the Society some remarks on the temperature of the body in paralysis.

In the discussion which followed,

Dr. ALTHAUS observed that his countryman, Dr. Hermann Weber, had recorded a case in which a great rise of temperature had followed an injury to the cervical spine. It would be interesting to hear if, in the cases brought before the Society by Dr. Ogle, the cervical portions of the cord were particularly affected.

Dr. HERMANN WEBER had observed the temperature in one case of tetanus very carefully. He had particularly observed that the temperature underwent a regular diurnal range, being highest in the evening, and that there was no relation between the administration of medicine and the rise in temperature. The amount of spasm in this case seemed to be greatest during the night. There was no relation between the amount of spasm and the temperature.

The PRESIDENT agreed with a remark that had been made (by Dr. Barclay) that the use of the thermometer for clinical purposes was perhaps rather excessive at the present time. He mentioned a case of fracture of the fifth cervical vertebra which had come under his notice, in which the temperature on the exposed parts of the abdomen was observed immediately after the injury to be 109° F.

THE annual meeting of the supporters of the Liverpool Children's Infirmary was held on Tuesday last. During the past year the number of in-patients had been 456, while 5643 had been treated as out-patients.

Reviews and Notices of Books.

Memoranda on Poisons. By the late THOMAS HAWKES TANNER, M.D. Third and completely revised Edition. London: Henry Renshaw. 1872.—There is, we fear, too often discoverable, in the innumerable medical works which are published in the present day, an inverse proportion between the size of the volume and the information contained therein. This handy and valuable little book is no exception to the rule. It is no bigger than an ordinary pocket-book; but instead of having to hunt for the knowledge of which it professes to be the vehicle in a mass of verbiage, we have our facts packed closely side by side, and so admirably arranged that any item of information can readily be dropped upon, with scarcely more loss of time than is entailed by referring to a dictionary. We gladly welcome a new edition of this little work, and so, we are sure, will hundreds of students who are preparing for the medical examinations, as well as busy practitioners who care to have by them a trustworthy and practical guide in cases of emergency. The editor of this new edition is evidently well versed in the practical parts of his subject. The directions for treatment are very good, and are all moulded upon a definite plan, which is thus stated:—1. Get rid of the poison. 2. Stop its action. 3. Remedy the mischief it has done. The broad rules thus given in the introductory portion of the work will be found to be admirably carried out with respect to every poison treated of. In many parts the work has been rewritten, and it has been brought well up to the present state of chemical and physiological knowledge. A new classification of poisons is given. They are arranged under four heads:—1. Corrosives. 2. Simple irritants. 3. Specific irritants. 4. Neurotics. The neurotics are again subdivided into narcotics, anæsthetics, inebriants, deliriants, convulsives, hyposthenisants (producing death by syncope), depressants (producing marked depression of the heart's action), asphyxiants, and abortives. This new arrangement has one great virtue—it is a powerful aid to the memory in acquiring a knowledge of the less known poisons. It is needless for us to recommend a work which has been so long and so deservedly popular. The present edition is in all respects equal to former ones; and, as it contains more facts and more recent ideas, it is by so much the better.

Inorganic Chemistry. By the late GEORGE WILSON, M.D., F.R.S.E., Professor of Technology in the University of Edinburgh. Revised and enlarged by H. G. MADAN, M.A., Fellow of Queen's College, Oxford, &c. W. and R. Chambers, London and Edinburgh. 1871.—Many years have elapsed since we made our first acquaintance with this work—then a small volume forming one of a series of Chambers's Educational Course. It was at once simple and practical, and therefore very well adapted for the objects its author had in view. Chemistry has been making rapid progress during the interval, and it is not surprising that the present edition has been much enlarged. A good deal of new matter has been added, and the old has necessarily been subjected to careful revision to bring it abreast of modern information, and adapt it to the requirements of the present time. The editor appears to have performed his task conscientiously and well, and we think he has succeeded in preserving the characters that deservedly made the late Prof. George Wilson's volume a favourite.

The Quarterly Journal of Microscopical Science. New Series. No. XLV. January, 1872. Edited by JOSEPH FRANK PAYNE, M.B. Oxon., and E. RAY LANKESTER, B.A. Oxon.—The January number of this journal starts under new management. Dr. Lankester, who has edited it for several years past, has resigned his office to Dr. Frank Payne, under whose able direction, aided by Mr. Ray Lankester, we have no doubt the high reputation it has long possessed will be maintained. The present part leads off well, containing several very important and valuable papers. Foremost amongst these are the notes of a course of lectures on Practical Histology, by Dr. Rutherford. We would strongly recommend the study of these to the younger members of the profession. The expenditure of a few shillings will, putting aside a microscope, enable all the necessary apparatus required to follow Dr. Rutherford's syllabus to be obtained; and the advantages of the training resulting from carefully following the directions explaining how tissues should be hardened, softened, stained, injected, rendered transparent, preserved, and cut, will be invaluable. Professor Klein, Dr. Sanderson's assistant at the Brown Institute, gives a good paper on the Distribution of Non-medullated Nerve-fibres: 1, in the nictitating membrane of the frog; and, 2, in the peritoneum of the same animal,—in both of which he describes four orders of fibres. Prof. Allman makes some observations on Dr. F. E. Schulze's memoir "On the Cordylophora lacustris," a species of hydroid polype long ago described by Prof. Allman himself. The chief points in which the latter author finds it necessary to modify his old views are in the admission of a hyaline supporting, as well as of a muscular layer between, the ecto- and endo-derm, the presence of cilia over the whole of the endoderm of the somata cavity, and the solid instead of the tubular character of the tentacles. Mr. Gulliver gives the measurements of the red corpuscles of the Porteagle shark at $\frac{1}{3\frac{1}{2}}$ in. for the long, and $\frac{1}{7\frac{1}{2}\frac{1}{2}}$ for the short. Dr. Ord mentions some peculiar action of glycerine on muroxide and oxalate of lime. Prof. Klein, of the Brown Institute, gives a careful description of Remak's ciliated vesicles and corneous filaments of the peritoneum of the frog. Mr. Thiselton Dyer describes the structure of the screw-pine; and Dr. Payne himself concludes a paper on Students' Microscopes, which we advise all students about to purchase a microscope to read, as they will there find a list, with the principal points in the construction of the instrument, its price, and magnifying powers excellently given. The "Reviews," "Chronicle," and "Proceedings of Societies" show that the editors are well up in their work, and are assisted by able coadjutors.

Elementary Treatise on Natural Philosophy. By A. PRIVAT DESCHANEL, formerly Professor of Physics in the Lycée Louis-le-Grand, Inspector of the Academy of Paris. Translated and edited, with extensive additions, by J. D. EVERETT, M.A., D.C.L., F.R.S.E. In Four Parts. Part III. Electricity and Magnetism. Illustrated by 241 Engravings on Wood, and one Coloured Plate. London, Glasgow, and Edinburgh: Blackie and Son. 1872.—The present part of this very excellent series by Professor Everett, of Queen's College, Belfast, is quite equal to its predecessors. The editor, in addition to much excision as well as revision of M. Deschanel's treatise, has, in reality, performed the part of author to a great extent on this occasion, owing to the fact that electrical science in this country has of late years made great advances in discovery, and especially in accuracy of method of treatment. Like the other parts, the present one is beautifully and copiously illustrated. The book is very well adapted for teaching purposes, and for "reading up" the subject by students and others.

The Manchester Medical and Surgical Reports. Vol. II. Edited by S. M. BRADLEY, F.R.C.S., and WALTER WHITEHEAD, F.R.C.S. Edin. Manchester: J. E. Cornish. London: Simpkin, Marshall, and Co. 1871.—This is a varied volume containing nineteen articles, mostly surgical. The practice and *rationale* of Skin-grafting are treated by Dr. Barlow,

Aural Diseases by Professor Williamson, and the Respiratory Movements in man by Dr. Ransome. Dr. Frank-Smith, Physician to the Sheffield General Infirmary, contributes a small article descriptive of a Melanometer, and Mr. Lund's notes on Hospital Case-taking are well worthy of attention. But the observations of the latter writer on Antisepticity in Surgery are certainly among the most noteworthy records contained in this volume, and may be perused most profitably at the present time, as we still have much to learn as to the comparative value of many so-called antiseptics and disinfectants.

The Journal of Psychological Medicine: a Quarterly Review of Diseases of the Nervous System, Medical Jurisprudence, and Anthropology. Edited by WILLIAM A. HAMMOND, M.D., Professor of Diseases of the Mind and Nervous System and of Clinical Medicine in the Bellevue Hospital Medical College, &c. New York: D. Appleton and Co. London: Trübner and Co. 1871.—We may direct our readers' attention to this publication, which is ably conducted by that indefatigable worker, Dr. Hammond. The present number is a good one, though not by any means the best that has come under our notice. The reviews and chronicle of contemporary literature are very well done. Among the articles is a letter from Dr. Day, F.R.S., late Professor of Medicine in the University of St. Andrews, on some recent Contributions to Mental Science, Medical Jurisprudence, and Anthropology, which presents an able *résumé* of current literature, medical and lay, on the above subject.

TROPICAL SERVICE.

THE age when young soldiers should be sent on foreign service, and especially to India, is a point of very great importance to this country. We were of opinion that the debates in both Houses of Parliament last session did not thoroughly sift the subject, and that sooner or later it would again come under consideration. The opportunity has arrived sooner than we expected. A statistical paper by Dr. Bryden, contained in Dr. Cuningham's last sanitary report to the Government of India, has already given rise to some remarks in the public press, and may lead to renewed discussion in Parliament.

It is quite necessary, for the proper understanding of this question, that the known facts as to age and mortality on tropical service should be remembered. It has long been ascertained that in all the hot stations occupied by our troops the mortality per 1000 of strength per annum not only increases with age, as at home, but apparently in a greater ratio than it does in cold countries. Dr. Balfour's statistical returns of the army give us the exact data for the last ten years, and the statistics which Dr. Bryden has now given of the mortality of the European Bengal army are in close accord. The mortality in the hot stations is greater at every age than at home or in Canada; but whether the ratio of increase is faster than the increase of age is perhaps doubtful. There is apparently some relation between the respective epochs in the temperate and hot stations. Thus the mortality at home, of persons under twenty years of age, being 2·73 per 1000, it is 7·68 in India. The death-rate at thirty-five, thirty-nine, and at forty years of age in India is in the same ratio to 7·68 as the death-rate at the same ages at home is to 2·73. But the general opinion seems to be that the mortality increases in a greater ratio than the age.

In the very first Statistical Report of the Army, published in 1838, the relation of the mortality to age of the troops serving in the West Indies was brought out in the most perfect manner, and in reasoning upon it the reporters not only give data to prove the existence of similar facts in the Bengal Presidency, but concluded that in the West Indies the mortality was least from eighteen to twenty-five years of age, and that "if no extra fatigue was to be endured, no active warfare, no long marches to be encountered, the best age at which soldiers can be sent to the West Indies is from eighteen to twenty-five." That is to say, that the State will lose fewest lives if it can employ soldiers of that age and demands also little work from them.

That the effect of age is to increase among soldiers the liability to mortal diseases in hot countries has, therefore, been long admitted, and the reporters of 1838 also made it highly probable that length of tropical service in hot countries acts in the same way. In other words, age alone increases, in their opinion, in an undue ratio the liability to mortal diseases, but length of service in the hot stations is an additional factor. On this appearing from their figures, they refused to admit the doctrine of acclimatisation, and appended the recommendation, which the Government afterwards carried out, of lessening the term of service in the West Indies from twelve to three years. It is therefore known that in this respect it is of no advantage to the State to send old soldiers to the tropics, but that, on the contrary, lives would be saved by sending young men and having short service. But this is only a small part of the question. Another side must be considered.

Although very young men have, in accordance with the laws of mortality, a less death-rate than the older men in India, it is well known that there are occasions when they have not only had unusual losses, but have had so much sickness and invaliding as to cause serious disquiet to the Indian military and medical authorities. It is admitted, in fact, that if very young men, who are often only half-drilled, go out to India, and are there at all hard-worked, even in peace, they furnish a large proportion of inefficients; sometimes they are obliged to be sent in large numbers to the convalescent hill stations, at other times they have been excused duty for long periods, and additional work has been thrown on the older men.

When these young half-drilled men have been called on for any unusual exertion on active service they have given way, and it has been stated that the youth and indifferent physique of some of the recruits sent out during the last three or four years have given rise to the fear that they might even be unable to uphold the credit of the British arms.

The fact is that mortality is only one item in the problem. The object of the Government is to make the Indian army efficient. If it sent out boys from fifteen to seventeen years of age it would no doubt have among them a rate of mortality greatly lower than among men of from twenty to thirty years of age, as long as they were not overworked or exposed to the rude trials of war. But this would be to sacrifice power and efficiency to obtain a small death-rate. The death-rate naturally grows with age, but so also do strength and resolution; and something must be sacrificed for these.

India requires thoroughly trained and vigorous men, with frames consolidated and military habits formed. That their death-rate will be greater than that of youths of eighteen or nineteen years of age is a matter of course; but can any comparison be drawn between an army of such men and a mob of boys?

We believe that the House of Commons were perfectly right in resolving that no man under twenty years of age should serve in India, not because the age *per se* is a bar, but because he is really not fitted for the possible emergencies of service.

We do not conceive that much difficulty will be felt with this part of the question, but a far more difficult point is to decide why the mortality should increase so greatly with age and, as we believe, with residence in India, and at what age the maximum of efficiency is passed. The old soldiers, if cholera is excluded, do not die, as a rule, from acute affections, but from chronic diseases, which must be placed in the great class of degenerations. What part climate, bad sanitary conditions, or improper personal hygiene respectively play in this result is a problem on the solution of which depend greatly the health and comfort of the army in India. Dr. Bryden's statistics throw much light on this point, and are worthy of more careful statement than can be given them at the end of an article.

THE LANCET.

LONDON: SATURDAY, JANUARY 27, 1872.

WE readily give Mr. GLADSTONE credit for designing a great compliment to the medical profession in advising the QUEEN to make Sir WILLIAM JENNER a K.C.B. and Dr. GULL a Baronet. The personal compliment to these eminent men is a marked and richly-deserved one. Still, though we would not be considered ungracious, we are not quite satisfied. The honour of a K.C.B. is doubtless very great, and reserved for distinguished services; and we admit that there are difficulties in the way of conferring higher honours, such as a Peerage or Membership of the Privy Council. But Mr. GLADSTONE'S merit is that he is a man to overcome difficulties, and to initiate new courses that seem justified by public opinion or consideration for public interests. Whatever the politics of medical men, they would admit that Mr. GLADSTONE is eminently capable of judging of scientific merit, and that his courage and position in the State are such as to make it reasonable to expect from him a bolder recognition of the claims of a great art like that of medicine than was thought to be called for even in the recent days of Sir JAMES CLARK or Sir BENJAMIN BRODIE. The Emperor NAPOLEON admitted NÉLATON to the Senate for his services to the Prince Imperial. Would it be too much for a statesman of Mr. GLADSTONE'S character to say that the time has come to admit Medicine to the Privy Council or the House of Lords? Is there anything creditable to the State in the exclusion, from the House of Lords, of the representatives of a branch of knowledge more deeply vital to the welfare of the people than almost any other? Is law so much more essential to a people's welfare than health that the representatives of the one profession may be admitted and those of the other excluded? Personal comparisons might be invidious; but surely the profession of SYDENHAM, of LOCKE, of CHARLES BELL, of HUNTER, of JENNER, of BRODIE, is only conspicuous by its absence from the House of Lords, or the Privy Council—bodies which owe their influence ultimately to the supposed possession of superior and special wisdom, acting serenely and scientifically, away from the strife of class interests. We are sure that the creation of peers or Privy Councillors from amongst the leading members of the profession is only a matter of time. It is mainly a question whether it shall be done by Mr. GLADSTONE or Mr. DISRAELI; and the present is eminently the occasion for doing it, because measures of vast importance affecting the health of the nation are imminent. "The skill and the watchful care" to which, humanly speaking, we owe the recovery of the Heir Apparent have been recognised in the very Thanksgiving of the nation. And we have a powerful and Liberal Government in office, that can do the House of Lords or the Privy Council no greater service than that of making them more representative of personal merits and of skilled opinion. Considering the huge importance of sanitary questions, and the difficulty of getting high medical talent into the House of Commons, it will be a national misfortune if some more influential honour is not accorded to the medical profession in recognition of late services.

We can well believe that the honours to Sir WILLIAM JENNER and Sir WILLIAM GULL are not the only ones in store for the profession, and the bestowal of which at this juncture would be regarded by the public and the profession with the highest approval. Without making such honours too common, there are yet a few representative men in our ranks whose merits, social qualities, and position alike point them out for distinction. These men have fairly earned it; and in the case of some whom we have already indicated by name, as it happens, there can be no objection made on the ground that any distinction accorded them would, in the natural course of events, be transmitted hereditarily. But we think it better to leave to the Government the selection of men whom it would delight to honour. In certain instances the title of K.C.B. might be a most fitting recognition of personal services to Royalty, or as a mark of professional distinction, and could be accepted where other honours are inconvenient on account of social or family considerations. Mr. GLADSTONE will know as well as any man that the work of Medicine now, both in its curative and preventive departments, has become of so much importance that it has a claim to more recognition by the State than it has ever yet received.

IT is announced that the Government will probably give way to popular clamour in the matter of the Contagious Diseases Acts. We may therefore fittingly review the present position of the questions at issue.

We have seen, on previous occasions, that even if the Report of the Commissioners is not all that we could desire, their labours have at least established two facts of no small importance,—namely, (1) the weakness of the case set up by the adverse witnesses; and (2) the absence of all suggestion of any substitutionary system, except one which must be either useless or mischievous, and would probably, if adopted, prove both. The charges against the police, so freely circulated and so instrumental in rousing general indignation, have proved to be false. The medical evidence, as the report points out, adduced no new facts, and failed to satisfy the Commission either that there is any better method of detecting venereal disease, or that this method is not perfectly effectual in the great majority of cases. The evidence offered on the moral side of the question was, as we have seen, no less conclusive against the view which it was tendered to support; while the voluntary system would merely have the effect of affording, at the public expense, comfortable retreats for diseased prostitutes during the periods in which they might find themselves unable to pursue their trade. The important bearing of these facts upon the recommendation that the system of periodical examination should be discontinued is manifest. The Commission, in making this recommendation, admit that the periodical examination of common prostitutes is the most effectual mode of dealing with venereal disease, and attach great importance to the maintenance of such a system. It does not appear that their recommendation, in the face of

the considerations to which we have last adverted, was due to any great respect either for the adverse evidence or for the arguments ordinarily advanced against the Acts. The Commissioners seem rather to have desired to provide a system capable of the greatest possible expansion combined with the smallest possible amount of stringency. They appear to have considered that the system of 1864 was too hastily exchanged for that of 1866, and that most of the good results claimed for the latter are really attributable to the former. We heartily join with the Report in deprecating hasty legislation upon a very difficult subject. We also desire to see the unhappy victims of prostitution subjected to as few restraints as is compatible with the due maintenance of the public health. Notwithstanding the outcry raised about the liberty of the subject being infringed, which we regret to see endorsed by names too weighty to be allied with an argument so faulty, and which is properly treated by the Report as one too valueless to deserve more than a mere passing notice, the proposition is indisputable that the Legislature has a right to attach to any mode of life, the entrance upon which is a matter of free will, any conditions that the public health or other similar considerations may require. All that can be reasonably urged is that the interference with private rights should be no greater than is necessary to secure the end in view. Now there is one striking feature in the system of 1866 from which that of 1864 is free—viz., the examination of healthy women. It seems clear from the statistics that at each examination a very small proportion only of women examined are found diseased. While at the same time they show this great increase in the number of examinations of healthy women, they fail to show that there has been a diminution of disease in an equal ratio with the increase of examinations. To this consideration, combined with a belief in the sufficiency of the system of 1864, and the desire to adopt a plan capable of general extension throughout the country, we may reasonably conclude that the recommendation of the Commission was mainly due. With regard to the first of these considerations, we must, in our turn, deprecate the too summary rejection of a system which has hitherto worked well, but to which a sufficiently long trial, to enable its capabilities to be accurately tested, has not yet been afforded. The statistics carry us down to the end of 1870; but in two places only was the system of 1866 introduced prior to 1869; it may therefore be reasonably doubted whether sufficient time has yet elapsed to enable us to form any conclusive opinion from figures as to the comparative capabilities of the two systems. It is a fact patent and obvious to the most ordinary understanding that the medical inspection of prostitutes must infallibly lead to the detection of a vast amount of disease that would otherwise remain undiscovered. We require neither statistics, nor the Report of a Royal Commission, nor the evidence of skilled witnesses, to convince us of the truth of a proposition so elementary; and, so far as the medical part of the question is concerned, supposing the system to be allowed fair play, there is no room for argument. The question to be determined, in fact, resolves itself into this: When the admittedly striking results produced under the Act of 1864 are taken into account, is it possible to obtain by the periodical system a diminution of disease commensurate with the increased number of the examinations? The possible diminution attainable depends upon a variety of contingencies too numerous to be noticed within the limits of this article. We content ourselves for the present with calling attention to one consideration too important to be overlooked even in the most hasty survey of the question. The extinction of the disease in each separate locality will be nearly or remotely approached in proportion as all localities favourable to its propagation are brought under control or the reverse; and it may, perhaps, be laid down with some confidence, that the more exhaustive the schedule of places to be subjected to control, the less stringent may the machinery be made for exercising that control. The true policy, in fact, is not to attempt to impose a general and uniform measure upon the whole country, but to determine what districts hitherto unprotected ought to be subjected to "special regulations for the treatment and control of a class of persons frequenting them under conditions calculated to engender and propagate disease." It is unfortunate that the line indicated by Mr. BOND's evidence was not further pursued. It may be that the recommendation to discontinue the system of periodical examinations is one that ought to be ultimately adopted. It is quite clear that so long as the protected districts are less numerous than the places that ought to be protected, and are liable to receive from these latter importations of disease, to carry out that recommendation would be premature. In connexion with this point the following propositions seem plainly deducible from the Report and evidence:—That although the periodical examinations are the most effectual mode of dealing with the disease, it is on the whole better to do without them if we can; that all the special centres of disease should be made the subjects of special legislation; that hasty legislation on this subject is especially to be deprecated; and that the failure of the charges against the police and the general character of the adverse evidence show that there are no abuses attributable to the Acts demanding immediate and unconditional removal.

It appears, therefore, that some system applicable to all the special centres of disease, and equally effective with that which it supersedes, should be substituted, if possible, for the present machinery. Such a system the Commissioners have attempted to suggest; but we doubt whether the information at their disposal was adequate to the purpose. We at least have searched in vain through the 20,000 odd questions and answers for the evidence which must necessarily form the basis of any legislation likely to be efficient, satisfactory, and permanent. The information necessary for this purpose, and without which its attainment is impossible, may be easily obtained by adequate inquiry. We should be informed, before any further legislative steps are taken, as to the extent to which the disease prevails throughout the country, the classes of the population especially affected by it, and the various districts in which it is chiefly propagated. Any attempt at legislation in the absence of this information must, from from the nature of the case, be little better than groping about in the dark. When we know with accuracy the

extent of the disease and the centres from which it radiates, we shall be able to define with corresponding precision the extent and the mode of the remedial and controlling measures, and to estimate how far it is possible, with due regard to other no less important considerations, to yield indulgence to a natural sentiment, and to trust for the reduction of the disease to some other machinery than that of periodical examination.

WE may fairly presume that the Public Health Bill, which will be introduced by Mr. STANSFELD in the forthcoming session, will contain some clause or clauses pertinent to the prevention of epidemic and other diseases that occur afloat. It is now an established fact (very lately recognised) that ships and their crews form a considerable item of aid in the distribution of disease about the ports and harbours, and, *a fortiori*, about the cities, towns, and villages of the kingdom; and hence any legislative action that failed to take special cognisance of the mercantile marine would be incomplete. It is, therefore, satisfactory to know that the etiology of many diseases that occur afloat is, in some sort, pretty well recognised and pretty clearly defined. We know that scurvy is chiefly confined to the crews of long-voyage ships, that China and Calcutta vessels bring home cases of dysentery, and that the West Coast of Africa and the West Indies are particularly prolific of the various forms of intermittent fever. And it is an equally well-ascertained fact that enteric fever exists almost exclusively among two or three classes of vessels that enter our ports and harbours. About 14,000 coasting vessels pass up the Thames year by year, the steamships carrying from fourteen to twenty, and the sailing ships from three to seven, hands. These men are usually engaged for the voyage, and their work is continuous, whether in the river or at sea. The vessels are ordinarily moored between London-bridge and the Tunnel, sometimes in close tiers of two or three deep; and, in the case of colliers, many of them are compelled to remain at anchor for many days between Blackwall and Woolwich, in that very insalubrious reach called Bugaby's Hole. The seamen on board these vessels, as a rule, live well; but their habitations and sanitary arrangements afloat are of the worst possible description, and hence, as may be supposed, they assist very materially to swell the list of cases of enteric fever admitted into the Seamen's Hospital. But there is another and more complete nucleus that demands special consideration. Swedish, Norwegian, and Finnish vessels come from the Baltic and North Sea to the Thames with cargoes of timber in large numbers, and the vast majority of these vessels haul into the Surrey Commercial Dock, which has a vast area, comprising ten or twelve basins, and is situated in the middle of Rotherhithe, on the south bank of the Thames. It is a noteworthy feature in the case of these ships that, having arrived here, they do not discharge their crews; and that the latter, by permission of the dock authorities, are allowed to sleep on board their vessels, and to make use of the latter as a home to any extent without let or hindrance. These men are, of course, under no sort of sanitary supervision. They are notoriously dirty in their habits; and therefore it does not surprise us to learn that nearly fifty per cent. of the cases of enteric fever admitted into the Seamen's Hospital come from the Surrey Commercial Dock and the vessels moored on the river in its immediate precincts. There are seven large ranges of docks in the port of London, the vessels in all of which require more or less sanitary supervision. We have pointed out but two among many instances in which some kind of interference is urgently needed. No medical officer of health ever thinks of going into the docks or on board any vessel in the port, although the Thames flows through no less than sixteen of their districts. The representatives of these districts, instigated by Dr. BUCHANAN, one of the medical inspectors to the Local Government Board, have, during the past six months, been making some sort of effort to inaugurate a central system of supervision; but apathy on one side, hostility on another, and a general haziness as to the correct interpretation of the existing law on the subject, have operated to prevent anything in the way of action. This unsatisfactory state of things indicates very clearly the proper course to be pursued. There can be no doubt that, as the Thames Conservators have now the entire charge of the port in all administrative matters, it is proper that the river and docks should form a distinct sanitary district, and that the Conservators should be "the local authority," and be held responsible in accordance with the terms of the Sanitary Act of 1866.

SOME months ago we felt it to be our duty to comment upon the state of the Bedford Infirmary, and we are glad to know that our criticisms have not been without effect. It will be remembered that the governors, at their quarterly meeting in October last, altogether threw over the suggestions of their Medical Committee for the improvement of the Infirmary. Since that time several cases of erysipelas have made their appearance, and two of them have terminated fatally. Permission has now been given to reduce the number of patients in the surgical wards. Notwithstanding this reduction, however, the amount of cubic space allotted to the beds is still, in our opinion, much too small. The medical wards remain overcrowded, as they do not at present afford more than about 753 cubic feet to each bed. The Bedford Infirmary was supposed to make up one hundred beds, but it will now only receive from fifty-seven to sixty patients.

At a quarterly meeting of the governors held during the present month, the condition of the institution and the proposed alterations were fully discussed. A committee appointed to report upon the latter recommended that three waterclosets external to the walls of the building be constructed on the men's side, and that three should likewise be erected on the women's side, if deemed necessary after a sufficient trial had been made of those in the first-named position. Mr. SHARPIN, the senior surgeon to the infirmary, inspected the plans for their construction and ventilation, and expressed his approval of them. Mr. GOLDSMITH, also a surgeon of the infirmary, said he did not know whether the governors were aware of the necessity of the case. At present the closets were ventilated by single windows, by which the foul air was driven into the corridors and wards to such an extent as would not for one moment

be tolerated in their private houses. After some discussion about postponing the execution of this work until after the annual meeting, we are glad to say that the good sense of the governors present carried the day, and the plans were adopted and the work is to be carried out. This is manifestly a step in the right direction; and although limited for the present to the men's side of the hospital, it must tend to effect a considerable improvement. Much discussion then took place regarding the prevalence of erysipelas among the patients, and its causes. Now, we do not deny that cases of erysipelas will occasionally present themselves in well-regulated hospitals affording ample cubic space and good ventilation; but there can be no doubt that the origin and spread of this disease is greatly influenced by the action of insanitary conditions. According to Mr. SHARPIN, several nurses had been attacked with this disease, which had generally appeared when the wards were overcrowded. There had been six cases in a month—two proving fatal. In one of his cases, improvement immediately took place when more air was admitted; and since the Weekly Committee had reduced the number of beds and given each patient 1000 cubic feet of air, there had been no fresh cases. Mr. SHARPIN alleged that "other institutions gave at least two and a half as much space per bed as they did at the Bedford Infirmary." The meeting would not have been complete, we may presume, without the presence of Mr. HURST, the gentleman who, on a former occasion, illustrated his idea of the folly of ventilation by the example of the mode in which a sow and her litter pack together. He could not on this occasion, apparently, for the life of him see how you could have ventilation without draughts; and he justified his position as to the evil effects of over-ventilation by citing the verdict of the jury at a late inquest in London. We are not anxious to discuss questions of hospital hygiene with Mr. HURST, but we may credit him with sufficient intelligence to perceive that the ventilation of a ward is one thing, and the warming of it another; and that there is some slight difference between the case of aged men, suffering from rheumatism and bronchitis, being placed in a newly-constructed, draughty, cold ward, with insufficient means for warming it, and that of younger men, suffering from surgical diseases, located in a ward the air of which is renewed sufficiently often to keep it pure, and provided with proper artificial heat to maintain a comfortable temperature.

Medical Annotations.

"Ne quid nimis."

THE PRINCE OF WALES.

THERE is really nothing to be said medically with regard to the Prince of Wales, save that his Royal Highness is virtually "out of the doctor's hands." The best indication of the fact is the ability of His Royal Highness to take, to enjoy, and to profit by out-of-door exercise, even at a time when the weather is anything but the best suited to invigorate convalescents. Recalling the main facts of the illness through which His Royal Highness has passed, we are more than ever impressed with the conviction that had the Prince lived in the days when the gold-headed cane and the wig were the chief insignia of the physician, he would, humanly speaking, have never been restored to the nation. The physician would have penned an elaborate prescription, leaving, as was the custom, the carrying out of his directions in detail to unskilled hands. The public must never forget how modern medical science, directed by the most skilled and able men amongst us, ordered and regulated everything, to the minutest matter, about the Prince. The matured judgment and acute forethought of the physicians, who were always at the bedside, prevented, on the one hand, the injurious action of the thousand and one—to non-professional minds—insignificant things that oftentimes together do great harm to the sick; and on the other hand, secured in the very nick of time, and at every emergency, the exhibition of the right remedy. Whilst we recognise the hand of Providence, we still claim for modern medical science that she has signally won fresh laurels, in the recovery of the Prince of Wales.

THE WATSON AND EDMUNDS CASES.

ALTHOUGH we hold a very distinct opinion of our own respecting the case of Mr. Watson, we cannot be altogether surprised that the Home Secretary (with the concurrence of the Lord Chief Justice and Mr. Justice Byles) has preferred merely to commute his sentence, instead of pronouncing him insane. No doubt there was much in the history of the prisoner's life to suggest, on a superficial view and without very careful consideration of medical details, that the prisoner was not out of his mind, but simply too infirm of temper to control himself under severe provocation coming at a time when he was broken down with trouble. But we cannot accept this decision as one which corresponds with the conclusions of medical science; on the contrary, we must express the opinion that, if it be impossible now to save Mr. Watson from penal servitude, a new and painful illustration has been given of the gulf which is fixed between legal views of responsibility and the facts of mental derangement as they are familiar to those who are constantly dealing with the wholly or partially insane. We shall recapitulate the principal points of the case, which leave no doubt in our mind that, irrespective of pity for his helpless old age and his great misfortunes, Mr. Watson ought to have been saved from a convict's doom. It is evident that so long as the poor man saw before him any hope of obtaining a subsistence, he bore all his troubles and his (probably severe) marital provocations with patience, showing a chastened and self-restrained temper which was not merely respectable but admirable. It is equally plain that the shock of the loss of his situation thoroughly unhinged him, and that from that moment he was a changed man. That the change really affected his whole mental balance seems clear from evidence as to his conduct before, during, and after the murder. It appears that his memory was seriously impaired, that a settled melancholy possessed him to such a degree as to incapacitate him for the performance of a simple clerical duty, that he walked about the neighbourhood of his house talking loudly to himself, &c. &c. When he killed his wife, his procedure, as Dr. Rogers justly observes, was not in the least like that of a merely angry man, of previously gentle habits and culture; he battered the poor corpse with the senseless ferocity of some raging wild beast. Finally, his whole demeanour since the fatal act has shown something far more remarkable than any mere apathy as to his moral guilt; there has been a real intellectual incapacity to apprehend either the true nature of his act or its probable consequences to himself. Add to this the fact that he, whose whole previous life had been that of a believing Christian clergyman, deliberately de-

fended his attempt at suicide in conversation with Dr. Rogers; and we affirm that the whole case bears the unmistakable impress of mental derangement. Surely it is not necessary, at the present day, to insist that his undoubted clearness of intellect in some directions, and his (by no means skilful) efforts to conceal his crime, are not impossible, or even unusual, concomitants of insanity. In fact, there wanted but one piece of additional evidence to make any verdict but that of insanity impossible—viz., the evidence of hereditary disease, and we understand that there is much probability that such existed (though from unfortunate circumstances it could not be proved) in the case of Mr. Watson's father.

That evidence which, as we have just said, would have compelled the acquiescence of every reasonable man in the theory of Mr. Watson's insanity, was abundantly present in the case of Christiana Edmunds, as to whom we can speak without a shade of the hesitation which one feels in a doubtful case. If there be one thing certainly proved in mental medicine, it is this—that for any woman, belonging to a family which (like that of the Edmunds's) was a prey to insanity and other nervous diseases, and living an involuntarily single life while struggling with hysteria and suppressed sexual feeling, it would be almost *impossible* to go on to the critical age of forty-three without actual derangement of mind. That her crime had a motive, and that her conduct was directed with an infernal cunning towards her end, is not in the least inconsistent with the worst forms of madness. We do not hesitate to say that had Christiana Edmunds been hanged, a judicial murder would have been committed; and we commend the Home Secretary for seeking the opinion of such competent authorities as Sir Wm. Gull and Dr. Orange, and promptly acting upon it.

A MEDICAL HERO.

ON the 22nd inst., the army, and especially the 78th Highlanders, lost the services of one of its bravest, most unselfish, and devoted medical officers—Dr. Valentine M. McMaster, V.C., surgeon of the 78th Regiment. Dr. McMaster was only thirty-seven at the time of his death. He entered the service in 1855, and served in the 78th and afterwards in two cavalry regiments as an assistant-surgeon. Promoted to the rank of staff-surgeon in 1868, he was soon afterwards placed in medical charge of his old corps, with which he was serving at the time of his death. Dr. McMaster was in the Persian war of 1857. He left Allahabad with Havelock's celebrated column in the same year, and was present in all the engagements that ensued up to the 12th of August. He was likewise present on the second advance into Oude, at the relief of Lucknow, the Rohilcund campaign, and capture of Bareilly. The Victoria Cross was conferred upon him for the intrepidity with which he exposed himself to the fire of the enemy in bringing in and attending to the wounded on the 25th of September, 1857, at Lucknow, on which occasion he received a slight wound. Many very gallant deeds were done in that campaign, but it was the unanimous opinion of the regiment, from its commanding officer downwards, that no one deserved the Victoria Cross so much as McMaster, on whom it was conferred. It is a simple matter of justice to state that it was impossible for any man to have been more beloved or popular, by officers and men alike, than the deceased officer. He possessed those qualities of character that command respect without awakening envy or jealousy. He was always earnest and self-sacrificing in his work, and on one occasion in particular, during a time of pressure and anxiety, when suffering from a painful surgical affection that would have caused anyone with less nobility of purpose to cease from work altogether, he carried on his labours as energetically as if he were in good health. "When I called to mind the suffering and loss of rest that he must have undergone on that occasion," remarked a medical officer whom he had consulted, "I realised what a thoroughly fine fellow McMaster was."

INTERNATIONAL COPYRIGHT.

WE print in another column a letter from Mr. H. C. Lea, of Philadelphia, the bookseller who has republished most of our standard English works on Medicine and Surgery, and may be presumed to have made a good profit on the transaction. Mr. Lea complains of some remarks which THE LANCET reviewer of "Hamilton on Fractures and Dislocations" made with respect to Mr. Lea's reproductions, and maintains that he has always treated English authors and publishers liberally, and can count on his fingers the works he has *not* paid for since he has had sole charge of his business. From the business-heading of his letter we learn that Mr. Lea's sole responsibility dates from 1865, so that if in six years even only ten English authors have been denied their rights, we fail to see how this betters Mr. Lea's position. But from careful inquiries we have made, we are in a position to deny that Mr. Lea, or his firm, has dealt with either English authors or publishers liberally or even fairly. When we say that Mr. Lea has published several large editions of Erichsen's Surgery, and has only within the last few weeks made a very insignificant acknowledgment of his obligations to that author, whose work had such a sale that it was *stereotyped* in America; and that other popular authors have fared even worse at his hands, we think most of our readers will agree that the remarks made had a just foundation.

Mr. Lea would have us to suppose that his profits are very small, and that English reprints have a very limited sale. We venture to say, on the contrary, that the sale of English reprints is very large, and everyone who is acquainted with the profession in America is aware how well-known English authors are. It is, we learn, Mr. Lea's custom, when applied to by an author whose work he has appropriated, to profess that the sale is limited, and that he expects to be a loser by the transaction. We only wish the chagrined authors had the opportunity of sharing what he is pleased to call his losses!

Notwithstanding the so-called liberality of Mr. Lea, the conduct of the American Government in refusing all answer to Mr. Erichsen's claim for the 5000 copies of his work distributed to army surgeons during the civil war, shows how little regard the American nation has to fair dealing in the matter of brain-work. Mr. Erichsen's, too, is not the only instance of the kind, for we are informed that Professor Longmore's article on Gunshot Injuries was reprinted from Holmes's System of Surgery, and given by the Government to every American army surgeon, though Messrs. Parker, the publishers of the work, received no answer when they applied for redress. An attempt is made in a slip from the *Medical News and Library*, forwarded to us by Mr. Lea, to explain away the injustice done to Mr. Erichsen, by declaring that there was a miscalculation as to the number of copies issued, but no allusion is made to Professor Longmore's article. In the same paper it is stated that "every American edition of Erichsen's Surgery has been issued under an arrangement with the London publishers." We have authority to state that no such arrangement has been made, except as regards copies of the woodcuts, and that the sum received little more than covers the cost of electrotyping. English authors and publishers are, in fact, forced to give electrotypes at cost price in self-defence, or submit to have a work

published with old and worn-out illustrations which very inadequately illustrate the author's meaning.

As Mr. Lea has taken up the cudgels on behalf of himself and his countrymen, we conclude this article by calling attention to the fact that in addition to publishing Erichsen's Surgery *edited by* John Ashurst, jun., M.D., he has quite recently brought out a work of a thousand pages on the Principles and Practice of Surgery by the same gentleman, who has not merely availed himself of the illustrations of Erichsen and other standard works, but has followed the plan, arrangement, and method of Erichsen so closely that one work may be taken as an epitome of the other. Mr. Lea may regard this as an original work, but we cannot do so, since there is scarcely more original matter in it than in a recent production of the English press lately forwarded to THE LANCET.

Philadelphia has hitherto been the head-quarters of American medical book publishing, but we are happy to learn that a firm in New York is bestirring itself to put forth works by English authors, for which it is proposed to pay these gentlemen a fair remuneration for their labours. Under these circumstances we hope that English authors will be able shortly to obtain some recognition of their services to American medical literature, and that, as the American law prevents one publisher from victimising his fellow-countryman, they may cease to experience the favours hitherto conferred upon them with such questionable Philadelphic zeal.

PARIAN FOR HOSPITALS.

ONE of the great things to be accomplished in hospitals is the provision of walls of impermeable material in the wards. It has been found that absorbent surfaces, taking up and retaining the organic matters that are constantly present in hospital air, become sources of danger to the inmates. Not only are infectious diseases liable to be spread in this way, but surgical cases are prone to be attacked with various complications. For example, in a ward of the New York City Hospital, where hospital gangrene had appeared, removal of the furniture and patients did not prevent fresh patients from being attacked. Closing of the ward and whitewashing had no effect. The plastering was then removed and fresh plaster applied, but still cases occurred; and then, as a last resource, the walls were taken down and rebuilt, which effected the desired end. Sometimes it has happened that absorbent walls, fouled and stained with organic matters, have failed to give rise to any apparent injury to health until they had been disturbed by cleansing and scraping. All sanitarians have been impressed with the necessity of providing the walls of hospital-wards with some substance impermeable to fluids and gases, and it has been generally considered that parian cement met these requirements. Notwithstanding its great expense, parian has consequently been used in all our best hospitals of late construction. There is much reason to fear, however, that it does not entirely fulfil its purpose in this respect; at any rate the parian in some of our hospitals has become stained and dirty-looking, and no amount of washing will remove this. Whether the staining have resulted from the absorption of materials condensed upon the parian in the moisture of the ward-atmosphere, or whether the discolouring be due to some structural change in the parian itself, does not appear to have been accurately determined yet. Still, the disagreeable fact remains; and it may make us hesitate about incurring the cost of providing parian for our hospitals until we know the causes of the change to which we have alluded. In the meantime, some have suggested glazed tiles, which are very effective-looking and cleanly, as a substitute; but their employment is open to the objections that they are very expensive, and that the substance by which they are cemented together is not impermeable; and, considering the small size of these tiles, the aggregate number of interstices to be filled up would be too great. After all, perhaps the best thing to do is to paint the walls with several coatings of any colour, protected with a very thick layer of varnish. This would probably be impermeable, and admit at the same time of being thoroughly cleansed and purified from time to time.

CONTAGION IN LODGING HOUSES.

IN the case of Best *v.* Stap, heard before the Court of Queen's Bench on Saturday on a demurrer, a point of great importance was at issue, but will not be fully settled until after the trial of the cause. It appeared that the defendant lets part of his house at Eastbourne to lodgers, residing with his family in the other part; and that, at a time when his children were suffering, or had lately suffered, from small-pox, he let his lodgings to the plaintiff's family without warning them of the danger they were incurring. The plaintiff's wife and children became infected by the disease, and two of the children died. The plaintiff thereupon brought his action, and the defendant demurred to the declaration, contending that he was under no legal obligation to disclose the state of his children, and also that there was no legal evidence of the source of infection. The Lord Chief Justice said there were certain facts wanting which it was necessary should be in the possession of the Court before they gave judgment; and that, therefore, it would be better to have the action tried first, and to argue the demurrer afterwards.

The importance to the community of the general question here raised can hardly be overstated; since, if the plaintiff's action can be sustained, it will open the door to legal proceedings that will greatly promote the isolation of persons suffering from contagious disease. If, on the other hand, the action should fall to the ground, it will show at a very opportune time the absence of any legal obligation commensurate with an unquestionable moral one; and may do much to impress upon the Legislature the need for some of the enactments which sanitary workers so much desire. In *The Times* of January 19th there was a letter bearing the signature of M.D., and relating how a man was attacked by small-pox, was removed to hospital, and died there in three days. His widow immediately called in a broker, sold her furniture, slept that night with a friend, and went the next day to her relations in the country. The friend with whom she slept has small-pox badly; the furniture-broker and the widow herself are both ill; and the furniture is liable to be sold piecemeal, and to convey the disease into a dozen houses. Surely it is high time that Parliament should place some obstacle in the way of the concealment of contagious disease.

DR. DYTE AND THE ST. PANCRAS GUARDIANS.

ST. PANCRAS has just won another of its fatal victories. Many of our readers will be surprised to hear that the judges sitting *in banco* have confirmed the decision of the Court below, so that Dr. Dyte has lost his case on appeal. The guardians not only dismissed him abruptly and unreasonably, but they refused to compensate him in any way, and took refuge in the strange plea that the appointment had never been passed under their *common seal!* It now appears that they are legally justified in such a plea. It is important that all officers of corporations, whether medical men or others, should remember that nothing will guarantee them in the possession of their office but the seal of the corporation affixed to the document which appoints them. It is

apparent that such a decision, if acted upon, is not an unmixed good, even to boards of guardians. Let it once be understood that faithful and long-continued service, or a more than commonly efficient discharge of duties, does not prevent ignominious and abrupt dismissal from office, and the best class of men will not give up their private interests to serve the public. The public will be worse served; and as regards the Poor-law medical service, the scandals of the old workhouse wards may be revived to the discomfort of the ratepayers.

Dr. Dyte, however, is a very considerable loser by the results of the appeal upon which he resolved with so much spirit. The fund raised for that purpose has as yet amounted only to about a *third* of the legal costs incurred. It has therefore been resolved to keep it open for a short time longer, with the view of indemnifying him if possible for the heavy losses sustained. Subscriptions for this purpose will be gratefully received by Dr. Bathurst Woodman, of No. 6, Christopher-street, Finsbury-square.

THE REGIUS PROFESSORSHIP OF MEDICINE IN THE UNIVERSITY OF CAMBRIDGE.

AS we anticipated, Dr. G. E. Paget has been offered, and has accepted, this post, vacated by Dr. H. J. Bond. The appointment will give general satisfaction, not only to the town of Cambridge where Dr. Paget is much esteemed as a practitioner, and to the university where he has proved an able teacher and an enlightened promoter of medical interests, but also to the profession at large, who will recognise it as a just tribute to indefatigable and successful labour in advancing the higher education among the future votaries of the science and art of Medicine. Dr. Paget, it may not be generally known, is a member of Gonville and Caius College, of which society he was formerly a Fellow, having graduated as eighth Wrangler in 1831. The professorship which he now fills was founded by King Henry VIII. in the year 1540, but no professor was actually appointed till 1554, when Dr. Blyth, of King's, was chosen for the post; and Dr. Paget is the sixteenth professor who has held the chair. He will deliver his inaugural lecture during the present term.

"HOSPITAL SUNDAY" IN LIVERPOOL.

THE result of the appeal made on behalf of the medical charities in the churches and chapels of Liverpool, on Sunday, the 14th instant, is not yet fully known; but so far as the returns have at present been made, it appears that the sum already obtained amounts to £6748, or nearly £2000 more than last year's collection realised. An excellent adjunct to "Hospital Sunday" has been adopted in Liverpool, the object of which is to interest the working classes in the movement by sending round collecting-boxes to the workshops, warehouses, and large public establishments on the following Saturday, and by this means a sum of £103 13*s*. 10*d*. is accounted for in the 1871 receipts. What the result of Hospital Saturday will be this year we shall probably learn next week; but the movement generally seems to have found such increased favour in Liverpool that we should not be surprised to find the workmen contributing twice as much as on the previous occasion. A comparison of the returns for 1871 with those just issued shows that the number of contributing congregations was nearly the same in both years (187 and 191), while the yield has increased from £4624 to £6315. Among the "various donations" received this year is one of £300 from "A Friend to Hospital Sunday," and another of £20 from a "Non-resident," the donor of the former munificent sum expressly stipulating that his name should not be divulged. Altogether these "various donations" amount already to £432, against £80 in 1871—a fact which we take to be corroborative of the opinion we have always held, that the "Hospital Sunday" movement, so far from having a tendency to check the flow of donations (at all times so acceptable), would be more likely to operate in the contrary direction.

A copy of the Manchester *Free Lance* has reached us, wherein we find a warm discriminating advocacy of the principle of collections in warehouses, factories, &c., which, it is urged, should, from a parity of circumstances, be as productive in Manchester as it has proved in Glasgow, where over £6000 a year is realised for local charities by such means.

GLYCERINE AS A SOLVENT FOR SUBSTANCES USED IN SUBCUTANEOUS INJECTION.

AT a late meeting of the K. K. Gesellschaft der Aerzte in Vienna, Dr. Moritz Rosenthal, one of the *docenten* in the Allgemeine Krankenhaus, advocated the use of glycerine as a medium for the solution of the various substances used for subcutaneous injection, and also exhibited specimens of such solutions. It is of the highest importance that the glycerine used be chemically pure, and free from all traces of fatty acids. By gradual elevation of temperature, the glycerine can be made to take up into solution a large number of certain alkaloids—e.g., chinin, morphin, curan, and also opium extract, and to retain them dissolved for, at all events, a year (this being the duration of the experiment) in a complete and clear solution. Certain other substances—e.g., thein, caffein, and preparations of iron, are, on the cooling of the solution, reprecipitated.

Of disulphate of chinin, twenty grains are soluble in one drachm of glycerine, this being in the proportion of 1 to 3. The same amount of the solvent will take up ten grains of muriate of morphia or of opium extract. Corrosive sublimate, of which five to six grains are soluble in one drachm of glycerine, must be diluted with water. One drachm of the solvent will take up only one grain of curare. The glycerine solutions of chinin, subcutaneously applied, were found of especial benefit in intermittents.

All of these solutions were stated to remain during the summer months perfectly pure and free from all traces of vegetable moulds.

In cases where the patient is very sensitive, these solutions can be diluted with water, and are stated to be especially adapted for injections in the region of the back, of the sides of the chest, and of the nates.

THE CUNNING OF CHRISTIANA EDMUNDS AND POISON REGULATIONS.

THE recent crime of Christiana Edmunds naturally directs attention to the question of the sufficiency of the barriers placed by the law between a murderer and the instrument whereby he means to commit murder—that is, when he designs to employ poison.

This wretched woman succeeded in obtaining from Mr. Garrett, a chemist at Brighton, no less than four different parcels of strychnine within the space of four months, a thing which we had hoped would have been rendered impossible by the Sale of Poisons Act of 1868. But when we look carefully to the transactions we cannot fail to admit that the provisions of the Act were complied with by the chemist, and the cunning of the murderess, rather than his carelessness, insured her success. On her first attempt to purchase strychnia, Christiana Edmunds, using what is, we suppose, the only reasonable excuse for needing it, an alleged necessity of destroying cat, dog, or vermin, and being apparently a person of undoubted respectability,

found no difficulty in obtaining the required witness to the purchase, a witness who would satisfy Mr. Garrett that all was right. On future sales the purchaser being known, and the seller having evidence, as it were, that no improper use had been made of the former lot supplied, a witness would not be needed, the signature of the purchaser alone being sufficient. On the fourth purchase, it seems a forged order, purporting to come from a neighbouring chemist, was presented to Mr. Garrett for a larger quantity than he could supply, and a message notifying his inability having been given in reply, a second order came for a smaller quantity, which was served. According to law these sales were regular. A chemist cannot, any more than a banker, be proof against fraud by forgery. But the cunning of Christina Edmunds did not stop here. She knew that Garrett's register of the sale of poisons in his shop would contain evidence to connect her with the crime which had now been committed, and accordingly again betook herself to forgery. This time she wrote to Mr. Garrett in the name of the coroner, and asked, not simply for a *sight* of his register, which undoubtedly the chemist would have been bound to give, but for the *loan* of his register, which he was certainly indiscreet in granting, and having thus got the fatal evidence into her possession, she tore out the leaves of the book on which her name appeared.

What, then, are we to say on the shortcomings of the Poison Act? Two objects were undoubtedly in the mind of the Legislature when that Act was passed. The first and principal, to prevent crime; and the idea of a person intending to commit murder calling in a witness to his preparation for doing it being so entirely beyond all human probability, the necessity for his doing so seemed the greatest safeguard which could be enforced. The secondary but still very important object was undoubtedly to supply evidence connecting the perpetrator with the crime, should any be committed.

No law, however stringent, can absolutely thwart a murderer; and there is one important point which cannot be too strongly urged on chemists, and which the Brighton tragedy powerfully proclaims: compliance with the requirements of the Poison Act should in no way lessen their sense of personal responsibility. We trust the better education now enforced on them by the very Act of Parliament to which we have referred will ultimately convince them, one and all, that so dangerous an article as strychnia should never be entrusted to unskilled hands, even to rid houses of domestic nuisances.

THE WARRINGTON BOARD OF GUARDIANS AND THEIR MEDICAL OFFICER.

THE Warrington Board of Guardians have had before them a very painful matter for discussion—a matter very unusual in the way in which it came before them. They were apprised that the Local Government Board had, without communication with them as a Board, called upon their old and trusted medical officer of the workhouse to resign his office as public vaccinator and medical officer. Some faults, it appears, have been found with Mr. Spinks, the officer in question, as to the mode in which he had performed his duties as public vaccinator, and thereupon has followed this severe and extreme punishment. The guardians very naturally, under such circumstances, take up the defence warmly. They say Mr. Spinks has been condemned with no opportunity of justifying himself; that they have never been consulted on the subject; that, as the two offices—of vaccinator and medical charge of the union workhouse—are distinct, it is absurd to make a fault in one department (if there be any fault) extend to the other; and that, as far as the part over which they have control is concerned, they have not a single complaint to make against Mr. Spinks; on the contrary, he has been a faithful officer for a great many years. The feeling of the guardians consequently is to try and retain Mr. Spinks as officer to the workhouse—a feeling which we are sure will carry general sympathy.

DR. LIVINGSTONE.

EARLY next month the search expedition will leave this country under the leadership of Lieutenant Llewellyn Dawson, R.N., nominated to that post by the Royal Geographical Society. Mr. W. Oswell Livingstone, second son of the Doctor, and one or two other gentlemen whose names have not yet transpired, will accompany the party. The short interval before the departure of the expedition, coupled with the fact that the Government have declined to afford any assistance to the enterprise, renders it the more necessary that subscribers towards its equipment should not only be liberal but prompt in their contributions. At a meeting of the Royal Geographical Society, on Monday, the conduct of the Government in refusing to subsidise an object so laudable was severely commented on, and suggestions were made as to memorialising Parliament on the matter. Later in the evening the President announced that the sum already subscribed amounted to £1700, and at its close Lieutenant Dawson was introduced, and most cordially received.

PROFESSOR HUXLEY.

IMPAIRED health, due to excessive and continuous exertion, has, we regret to announce, compelled this eminent *savant* and publicist to absent himself for a time from every kind of occupation, and to spend two months in the mild climate of Egypt. Professor Huxley, who is now on his way thither, carries with him the fervent hope of all votaries of science and liberal culture that he will be speedily enabled to resume, with his accustomed energy and effect, those studies and investigations which have already won for him the esteem and gratitude of his most enlightened fellow-workers.

SICK-LEAVE TO MEDICAL OFFICERS SERVING IN INDIA.

THE Indian Government is, it appears, bent on economising to the utmost. We may inform those who may not be aware of the fact that, according to a recent general order, sick-leave to any medical officers serving in India is not to exceed six months from the date of their departure from that country; and in the event of their being unfit to return to their duties at the end of that period they will be replaced on the Indian establishment by efficient officers. It appears to us a somewhat harsh measure, after a medical officer has lost his health by some disease, like dysentery or hepatitis, that is entirely attributable to the climate in which he has been serving, to replace him at the end of a period which is in many cases insufficient for his recovery.

THE BRADFORD FEVER HOSPITAL.

A NEW fever hospital has just been opened at Bradford; and the building, before being finally prepared for the reception of patients, was used as the scene of an inaugural *conversazione*, which appears to have been of the most successful character. The new institution owes its origin to the munificence of Mr. Alfred Harris, seconded by Sir Titus Salt, and by an anonymous donor of £2000; and liberally supported by the inhabitants generally. Dr. Macturk has been appointed consulting physician; Drs. Nicol and Alexander are visiting physicians; Mr. Meade is consult-

ing surgeon; and Mr. RIX, resident medical officer. The plans of the building were submitted to Dr. Murchison and to Dr. Bridges, of the Local Government Board; and no money or trouble seems to have been spared in the design or the construction. We trust the new hospital may prove a real and lasting benefit to the locality.

VENTILATION OF OUR LAW COURTS.

Stare vias super antiquas is a maxim which seems to control the legal profession even in matters affecting its own welfare. It still consents to administer justice in court-rooms almost as ill-ventilated as the black-hole of Calcutta. On Saturday the Court of Queen's Bench was so foul in its atmosphere, that the bench, the bar, and the reporters, with unwonted unanimity, complained of the nuisance. When fresh air is let in, the remedy proves as bad as the disease, severe colds being caught by the sudden in-rush of oxygen, and loss of voice (as Mr. Manisty testified) being produced in consequence. Surely our legal brethren will not carry their jealousy of a sister profession so far as to resent the interposition of the sanitary reformer.

ABSORPTION BY THE VESICO-URETHRAL MUCOUS MEMBRANE.

M. E. ALLING has recently investigated anew this much contested subject, and has arrived at the following conclusions:—1. The healthy bladder does not absorb to an appreciable extent either remedial or toxic agents. 2. The healthy urethra, on the contrary, is perfectly capable of absorbing them. 3. The mucous membrane of an inflamed bladder is unquestionably capable of absorption. 4. Lastly, in a therapeutic point of view, this capability of absorbing possessed by the inflamed bladder may be advantageously employed as a means of cure.

CHARGES AGAINST A UNION MEDICAL OFFICER.

THE Board of Guardians of the Newton Union have been engaged in investigating a charge of neglect of duty brought against Mr. Manley, one of the district medical officers. The patient about whom the charge was brought was a woman seventy-four years of age, with bronchitis; and the statements that were made do not appear very conclusive in print, especially when it is taken into account that Mr. Manley has held his office for twenty years, and that no charge of neglect has ever been brought against him before. The Board of Guardians, however, passed a vote of censure on Mr. Manley, and referred the case to the Local Government Board. We trust that, when sifted, it may appear to be a less serious matter than the action of the guardians would suggest.

PROTECTION TO INFANT LIFE.

WE understand that Mr. W. T. Manning, the coroner to the Queen's household, has undertaken to draft a Bill for the Protection of Infant Life, at the instance of a party of clergymen and others interested in the subject. We cannot but feel that the protection of life is a function of the Government; and that no Home Secretary, however disposed to leave troublesome matters alone, would be likely to declare the utter uselessness of himself and his department by accepting, on such a question as this, the well-meant suggestions of a select committee of amateurs. Infant life is notoriously unprotected; but we trust that the necessary changes in the law may be brought before Parliament by Mr. Bruce himself, and pressed forward with the full weight of Government influence.

THE MEDICAL COUNCIL.

THE meeting of the General Medical Council will not take place till near the end of February, probably about the 27th. It is hoped that the delegates of the medical authorities in each division of the kingdom will agree on schemes for conjoint examination, but as these schemes will have to be considered and formally confirmed by each of the universities and corporations before they can be submitted to the Medical Council under the 19th Section of the Act of 1858, it is thought advisable to give time for this purpose.

HOSPITAL GOVERNORS.

THE question of the privileges of governors has again come to the front in Brighton; this time in connexion with the Lying-in Institution. The building can only accommodate six in-patients, and it was felt that these should be bad cases—not the mere holders of letters of recommendation. At a general meeting last week it was supposed to be understood that in-patient letters might be given; but that they were to be entirely disregarded unless the case were a bad one, or if any worse case with no letter required the vacant bed. Surely this is a shadowy "privilege" indeed.

IT must be somewhat humiliating to the authorities at Richmond-terrace to know that a public vaccinator practising in a provincial city advertises in a medical journal that the liberal sum of "three shillings and sixpence will be forwarded for two dozen well and freshly charged points, or six large well-filled tubes, if sent at once, or within about a week's time." The advertiser may, we suppose, fairly plead "My poverty but not my will consents." Meanwhile, if public vaccinators are compelled to advertise rewards of shillings and sixpences for vaccine lymph, it would be as well to put up the shutters and close the doors of the Whitehall depôt.

AT Oxford, on the 26th inst., Dr. Rolleston, the Linacre Professor of Anatomy, will begin a course of lectures on Digestion. Classes for practical instruction will be formed as in former terms. On Saturday, the 3rd proximo, and on succeeding Tuesdays and Saturdays, the Regius Professor of Medicine, Dr. Acland, will resume his course of clinical instruction at the Infirmary. The Professor will also, on days and places to be hereafter appointed, demonstrate on the spot sanitary defects in a town and in a village; illustrating thereon principles of general and special sanitary administration.

THE Home Secretary, it is understood, immediately after the opening of Parliament, will lay on the table of the House of Commons the Bill he has framed upon the Report of the Contagious Diseases Commissioners. The first clause of the Bill will repeal all existing legislation on the subject. The new Act will consequently be very full if not exhaustive in its provisions, and a large part of it will not (it is anticipated) provoke much opposition.

Deputy Inspector-General Massy, C.B., head of the Sanitary branch of the Army Medical Department, has embarked for India, and it is expected that he will soon be followed by Dr. Crawford, the head of the Medical branch of the same department, who proceeds to Umballa. Dr. Crawford will be succeeded by Dr. Rutherford, C.B., Deputy Inspector-General; and Inspector-General Muir, C.B., will, it is believed, become the head of the Sanitary branch at Whitehall-yard.

SMALL-POX has been raging on the Bonny river. At the town of Brass, fifteen miles up from the Calabar coast, 500 persons have died of it. The Brass men have adopted a novel way of stopping the epidemic. Whenever a poor wretch is taken ill, they at once cut his head off and save further trouble. It would be interesting to know the result of this heroic treatment on the epidemic. The disease has also been prevailing to a considerable extent at one of our military stations—Cape Coast Castle and its neighbourhood; but is, by the latest accounts, fast dying out.

THE Government of India in the military department have enacted that so long as a staff assistant-surgeon, who is promoted to a staff surgeoncy and taken on the Indian establishment, does duty as a surgeon, or, in other words, holds the medical charge of a regiment or depôt, he shall be considered as entitled to Indian allowances of the higher rank from the date of his promotion, provided he is for the full period within the authorised number of staff surgeons.

THE medical men forming part of the French National Assembly—about thirty in number—have formed themselves into an extra-parliamentary council. Among the numerous questions which this body will have to consider are:—The organisation of military surgical assistance, public hygiene and legal medicine, the better security of alleged lunatics, reorganisation of medical education, and the physical examination of soldiers.

SIR DAVID BAXTER, of Kilmaron, has just added another to his many acts of munificence towards Dundee. He offered, some time ago, to the directors of the Infirmary to build a Convalescent Hospital for about sixty inmates at a cost of from £6000 to £8000; and to endow it with £10,000, if others subscribed the same amount. The second sum having been made up, the building will proceed forthwith.

AN influentially-signed memorial has been presented to the Managers of the Edinburgh Infirmary, protesting against the proposal to "reconsider" the statute in favour of the lady students passed on January 1st. *Apropos* of the interdict recently lodged against five gentlemen elected as managers, answers have been prepared showing cause why the interdict should be recalled.

THE Australian preserved meat trade appears to be flourishing. The statistics of the past year show that a total of 243,344 cases were sent to England, of which 95,183 were shipped from Melbourne and 57,289 from Port Philip. A report derived from the evidence of officers of public institutions in which this meat is now used would be specially interesting and instructive.

WE understand that Dr. William Ogle has resigned the office of Assistant-Physician to St. George's Hospital, but will retain that of Lecturer on Physiology in the medical school. Dr. Whipham is a candidate for the vacant post.

THE interest felt by Her Majesty in the suffering poor has again been manifested by the gift of twenty brace of pheasants to the patients of the Charing-cross and of the Middlesex Hospitals respectively.

AT the meeting of the Medical Society, on Monday evening, a paper will be read by Dr. B. W. Richardson, F.R.S., on "The Science and Art of Healing Wounds."

PROFESSOR WILSON will commence his course of six lectures on Dermatology in the theatre of the College of Surgeons on Friday, the 2nd of February next, at 4 P.M.

AN examination of candidates for forty appointments as assistant-surgeons in the Indian Medical Service will be held at Chelsea Hospital on the 12th of February.

THE troops of the Looshai expedition continue healthy, though dysentery and fever have declared themselves among the coolies.

Public Health.

HEALTH OF LONDON AND THE LARGE TOWNS.

THE mortality in the eighteen chief cities and towns was lower last week than in any previous week since the middle of November, and, with the exception of whooping-cough, the proportion of diseases of the zymotic class has been remarkably uniform during the past three weeks. The mildness of the weather keeps down the aggregate death-rate from all causes, notwithstanding the excessively fatal prevalence of small-pox in several of the towns; the loss in a few towns by this one disease is more than counterbalanced by the gain in the others which the absence of inclement weather induces. In London the mean of the daily temperatures was below the average on 37 days out of the 38 extending from 5th November to December 12th inclusive, and the effects of this cold weather were clearly manifest in the death registers during six weeks, when the mortality was at the annual rate of 30 per 1000. Since the 13th December the temperature has been above the average on 34 out of 39 days, and the death-rate of the last four weeks has averaged 27 per 1000 annually. The deaths from phthisis, bronchitis, and pneumonia averaged 713 per week during the cold period, against 535 per week in the warm period.

THE ACTION OF HEAT AND VARIOUS CHEMICAL AGENTS ON THE PRIMITIVE FORMS OF LIFE.

At the last meeting of the Association of Medical Officers of Health, Dr. Druitt in the chair, Dr. F. Crace Calvert, F.R.S., &c., delivered an address on "The Action of Heat and Various Chemical Agents on the Primitive Forms of Life." Dr. Calvert said that his experiments led him to disbelieve in spontaneous generation, but that he had found great difficulty in securing pure water and reagents free from germs. After describing very fully the precautions he had observed, he proceeded to say that he had found that the greater portion of all microscopic life was destroyed by a temperature of 200° Fahr., but that there was one form which survived all temperatures below 300°. He dipped calico in a putrescent solution of albumen, and then submitted it to a temperature of 300°. The calico was softened, but a black opaque vibrio was afterwards found to be as lively as ever. To test the action of various chemical agents, he added the one-thousandth part to a solution of white of egg and pure water. In the first series the white of egg solution was quite fresh, in the second it was alive with vibrios. Thirty-eight substances had been experimented on, and special note was made when vibrios fungi and odour were first observed. These tables are too elaborate for our columns, we therefore note the following points, to which special attention was drawn:—1. Chloride of lime or bleaching powder, instead of stopping, actually promoted, the decomposition of the albumen liquid—vibrios were found in great abundance, but no fungi. 2. Sulphate of quinine retarded the production of vibrio life, which appeared on the twenty-sixth day, but even after eighty days there were no fungi. 3. Acids promoted the formation of fungi, particularly the sulphuric and acetic; whilst arsenious acid had no marked effect. 4. Alkalies, on the other hand, promoted the formation of vibrios, and prevented the growth of fungi. Chloride of zinc and bichloride of mercury prevented the formation of vibrios, and fungi were not found before the fifty-third day. 5. Carbolic and chrysolic acids were the only agents which prevented the formation both of vibrios and fungi. 6. Permanganate prevented smell, but had no effect in retarding the production of primitive life. In the second series the albumen solution was putrid and

full of life. Sulphuric acid and acetic acid seemed to paralyse the microscopic life, but at the end of twenty-four hours the vibrios recovered, and then fungi began to form rapidly. Soda produced little or no effect. Ammonia and lime promoted the putrescence, and had very little effect on the microscopic life. Chloride of zinc destroyed the greater part of life, and there was no reappearance until after eighty days. Suphlo-carbolate of zinc is nearly as powerful as chloride of zinc, and Dr. Calvert thought it would prove a most convenient and useful disinfectant. Permanganate destroyed the odour, even for eighty days, but life continued most active. Sulphate of quinine did not affect the motion of vibrios. After six days the putrid odour was increased, but no fungi were formed. Picric acid acted in the same way. Charcoal added to the pure albumen prevented the development of smell. Vibrios appeared at the end of six days, fungi at twenty-one days, and putridity at fifty. Added to putrid albumen, the putrid odour was removed, but life was unaffected. Under no circumstances was life entirely destroyed. One part of putrid albumen solution was added to two parts of strong sulphuric acid. There was a great rise of temperature, and yet the black vibrio before noticed was as lively as before.

Dr. Letheby explained that bleaching powder acted by supplying oxygen, which was an important agent in the production of life, but it might nevertheless act as a powerful disinfectant. It was most important not to jump to the conclusion that infectious matters were necessarily associated with microscopic life. He could not understand the action of sulphate of quinine, for he had a vivid recollection that decoction of bark was apt to become mouldy.

The thanks of the Association were given to Dr. Calvert for his most interesting address.

SANITARY LEGISLATION.

On Monday an address was delivered at the Social Science Association by Mr. G. W. Hastings on Sanitary Legislation. The questions submitted were—first, the nature and constitution of the body to which the administration of sanitary law should be entrusted; and, secondly, the kind of sanitary officers who ought to be employed. Mr. Hastings confined his remarks to rural districts, and proposed the justices in Quarter Sessions, as being a most independent and intelligent body, altogether above the petty interests by which sanitary action is so often obstructed. One great advantage was that the justices were not elected, and another that they also exercised judicial powers. He said that it was rumoured that Mr. Stansfeld was about to establish county boards of guardians; but if so, provision must be made for the presence of *ex officio* members—viz., justices. On the second point, Mr. Hastings, whilst paying a high tribute to the character of the Poor-law service, denied that the district medical officers would be efficient officers of health. It would be desirable, in his opinion, to have a few men of great and special qualifications at a high salary. He thought one or two such officers in each county would be sufficient. He proposed, therefore, that Parliament should be asked to give the justices power to employ a medical officer of health, as they have already power to employ a public analyst.

Mr. Webster, Q.C., objected to the justices as administrators of sanitary law. He had had considerable experience, and he regarded them as little better than the tools of their clerk. They did very well for dealing with poachers, and they were just competent to appoint an analyst, but they were the last persons he would entrust with the administration of sanitary law. He thought the watershed ought to be the sanitary area, under one control.

Dr. Rogers said that the Poor-law medical officers wished to be deputy officers of health, but would prefer to act under an independent officer of health not engaged in general practice.

Dr. Rumsey, whilst acknowledging the good work done by the Sanitary Commission, thought that small areas would be fallacious. He thought the representative principle not applicable, and under it an inferior order of men would be elected.

Dr. Lankester was afraid of justices, and he recognised the difficulty of getting new Boards. The central power, in his opinion, ought to be increased.

Dr. Stallard said the real question was whether or not the principle of representation was to be maintained as the principle of local government. He thought it impossible that any authority could permanently tax the community for matters in which the public had no faith, and if so the authority must be representative. Once grant this, and the defects must be taken with the advantages. Neither the central power nor justices could work without local assistance, and that assistance would not be obtained by force. The problem was, therefore, how to raise the general standard of public opinion on sanitary questions, and secure its favourable representation at the local board. On the whole, he thought the recommendations of the Royal Commissioners well adapted for the purpose.

Mr. Chadwick, C.B., said that large areas were indispensable, not only as regards the functions of officers of health, but of surveyors and engineers. There would have to be special authority for drainage areas.

The Chairman (Mr. Godwin, F.R.S.) thought the report of the Sanitary Commissioners good, but imperfect. It left the important questions of structures and sewer ventilation untouched.

The thanks of the meeting were voted unanimously to Mr. Hastings.

SMALL-POX AND VACCINATION IN SHEFFIELD.

It is well known that Sheffield was for many years one of the head-quarters of the anti-vaccinationists. Dr. Hime has neither been inoculated nor has he had small-pox, but he is so satisfied with the protection afforded by good vaccination that he challenges a gentleman who has been inoculated many years ago to submit himself with him to inoculation, in order to prove which is most effective. He says: "It is entirely in the interest of public health I make this proposal. The unreasonable opposition offered to vaccination by persons quite inexperienced in sanitary matters, and mostly by the lowest and most ignorant of the population, causes great public loss—in life and money. If I can diminish this I shall be more than satisfied for the risk I run. A committee may be appointed to superintend the operation, and watch the results, and watch me while I keep quarantine. I am quite aware of the legal consequences."

LONDESBOROUGH LODGE.

Professor Corfield has published an elaborate description of the drainage of Londesborough Lodge. Very little is added to our knowledge, but it is again proved that the main house-drain was in direct connexion with the sewer outside, without the intervention of any trap to take off the pressure of the sewer gases. The Professor has attempted the now impossible task of examining the conditions which probably existed at the Royal visit, and we cannot congratulate him on the result. It is a very significant fact that the Professor does not repudiate the imputation conveyed by the fact that three persons have been affected with typhoid fever, all of whom were more or less present in the lodge during the Royal visit. He complains that the ideas afloat on the subject are many of them incorrect and exaggerated, but that the air of the house was infected is not one of them. Indeed, it is admitted that there were certain sanitary defects which might give rise to it.

CORK.

The Sanitary Committee of the Corporation and Guardians of the Cork Union have resolved to apply to the Privy Council for powers to enable the guardians to become the nuisance authority for the harbour of Queenstown, in order that adequate measures may be taken to prevent the importation and spread of small-pox. The harbour is at present under four nuisance authorities, and nothing has been done. There have been 115 cases of small-pox in Cork, and there are now 14 patients in the workhouse hospital.

SMALL-POX IN HOTELS.

The need of compulsory registration of small-pox is shown by a letter of Lord Cardross in the *Daily News*. The master of an hotel was ill, and confined in a room on the basement floor. The nature of the disease was denied in the most positive manner, and a family, staying in the hotel, remained. The master has since died of small-pox, and one member of the family has been taken ill.

THE cholera at Constantinople appears to be sensibly abating, there being at present only two cases per diem.

THE CRYSTAL PALACE AQUARIUM.

ANYONE who has succeeded in maintaining even a small salt-water aquarium in working order will know the difficulties and the pleasures that attend it. There is, first of all, the due adjustment of the balance between animal and vegetable life by the proper arrangement of both forms in the tank, to say nothing of the various disturbing causes which may give rise to the death of an animal or plant and the poisoning of the aqueous medium, on the purity of which the life of both depends. We are unable to do more at present than call attention to the splendid aquarium at the Crystal Palace; but it is only due to the great and patient exertions of those who have carried out such an undertaking to award them the praise they so richly deserve. The most successful aquarium in Europe was that in the Hamburg Zoological Gardens, and it is only one-fourth the size of the Sydenham aquarium. The methods adopted for maintaining the proper motion of the water, and its due aëration and temperature, are very ingenious and skilful. Those who possess a knowledge of marine zoology—and they are many in the medical profession—as well as those who are mere amateur dabblers in that study, cannot do better than visit the aquarium for themselves; and, with the aid of the little handbook furnished them and eyes to see, we can promise them no end of interest. We were recently present at Professor Flower's lecture on the Fish, and he took care to indicate how many points, on which we at present possess little or very uncertain information, may be cleared up by studying the fish living in the waters of the aquarium.

Correspondence.

"Audi alteram partem."

THE IMPROVED DEMONSTRATING OPHTHALMOSCOPE.

To the Editor of THE LANCET.

SIR,—The interesting article by Mr. Carter, which appeared in your issue of the 13th inst., upon an Improved Demonstrating Ophthalmoscope, is deserving the attention of all engaged in ophthalmoscopic work. I have been in the habit of using Burke's Ophthalmoscope in the manner described by Mr. Carter, ever since one of these valuable instruments (through his kindness) came into my possession, which is now nearly nine months since. The lens I have employed has been an ordinary hand-glass sold by opticians for the examination of pictures, fitted by its handle into a telescopic stem to allow of its being raised or depressed as circumstances might require.

With regard to the reflected or "ghost" image, Mr. Lawrence, so far back as the year 1863, described its production in precisely the same manner and with precisely the same instruments (with the exception of his mirror being without a perforation) as it is described by Mr. Carter. Vide "A New Ophthalmoscope on the Ghost Principle."—ROHR, part i., vol. 4.

I am, Sir, your obedient servant,

P. C. S. JEAFFRESON.

Hood-street, Newcastle-on-Tyne, Jan. 10th, 1872.

THE STATE OF MIND OF MR. WATSON.

To the Editor of THE LANCET.

SIR,—I beg to forward you the letter which I have just received from the solicitor who conducted the defence of Mr. Watson, and shall feel obliged if you will publish it.

I am, Sir, yours obediently,

Dean-street, Soho, Jan. 23rd, 1872. JOS. ROGERS.

78, Dean-street, Soho, Jan. 23rd, 1872.

DEAR SIR,—I was only able to have an interview with Mr. Watson at Horsemonger-lane gaol yesterday. He had not then been informed of the day fixed for carrying out the sentence, which however was communicated to him by the chaplain in my presence. Supposing Mr. Watson to be of sound mind, I should have imagined that this intelligence would have impressed him very much; but I am not in the least exaggerating when I say that Mr. Watson received the information as if it in no way seriously concerned him. Again, he mentioned to the governor that one of the persons who is watching with the gaoler in the cell had during the previous night walked up and down and made a noise in keeping up the fire, which disturbed his repose and prevented his sleeping.

These two circumstances, in addition to those which I have noticed on previous occasions, convince me that there is in Mr. Watson great mental weakness and a total want of power to realise his position.

I remain, dear Sir, yours very faithfully,

Dr. Jos. Rogers. W. J. FRASER.

THE PRICE OF IODIDE OF POTASSIUM AND THE SUPPLY OF KELP.

To the Editor of THE LANCET.

SIR,—A few weeks back THE LANCET called attention to the steadily-increasing price of iodide of potassium, which has more than doubled its value within the last six months. It is extraordinary that so little attention has been directed to its supply and manufacture. The iodide is well known by the medical profession to be one of the most valuable drugs in the Pharmacopœia. It is also extensively used in photography, and iodine is in much request for certain dyes. Its cost as a drug is seriously felt, and must be an important item in the expenses of Poor-law officers and charitable institutions. The principal seat of manufacture is at Glasgow, at which place the kelp is imported from the Western coasts of Ireland and Scotland, and there submitted to the usual chemical process and prepared for the market. There seems to be no reason why the supply of kelp and the manufacture of iodine should be restricted to these localities when kelp can be obtained elsewhere under equally favourable circumstances; and as there is no dearth of material or labour, the manufacturers' profits must now be large. It is well known to residents in Jersey that great quantities of sea-wrack are washed up, especially of the laminaria digitata, which, according to the best authorities, contains the largest proportion of iodine; and Ansted, in his celebrated work on the Channel Islands, states that "Professor Graham first directed attention to the weed around Guernsey as the richest known source of iodine." The same authority states, further, that a larger supply is found in Jersey owing to its more extended line of coast. In these islands large quantities of sea-wrack are collected for agricultural uses, and the laminaria digitata is considered to be the least advantageous to the land, so that it could well be spared for another and a more profitable purpose.

I am, &c.,

January, 1872. JERSEY.

CAMBRIDGE.

(FROM A CORRESPONDENT.)

THE choice of the Crown of a physician to fill the post of Regius Professor of Physic has fallen upon Dr. Paget, and a fresh impulse to the Medical Faculty at Cambridge may be anticipated from the zeal, experience, and sound judgment of the new Regius Professor. During the twenty years in which the office has been held by his predecessor, Dr. Bond, who was a painstaking and conscientious though unostentatious man, and a thoroughly well-informed practical physician, great advances have been made in Cambridge. The examinations for medical degrees have been extended and systematised, and rendered thoroughly practical. They are, and have for some time been, conducted *viva voce* as well as by written papers; and the student is subjected to a rigorous examination on the dead subject in anatomy, and on preparations, recent and preserved, in pathology. He is tested in practical physiology and histology, and clinically in the wards of the hospital. Indeed, if I mistake not, clinical examination in the hospital wards was carried out in Cambridge long before it was attempted by other

English licensing bodies. The examiners have ceased to be the resident teaching staff, and have not been confined to members of the University; but others have been selected, possessing special qualifications for the task, who have been instructed in other places and under other systems, in order that the University may obtain the advantage of a wider range of thought and educational experience, and may receive suggestions for perfecting the system. Among the gentlemen so appointed have been Mr. Savory, Dr. Hooker, Professor Wood, and Dr. W. Ogle. The theses for medical degrees, formerly in Latin, which had become little more than a farce, have been made a *bonâ fide* part of the examination, are now delivered in English, and are followed by a *viva voce* examination on the subject of the thesis and other matters; and an extempore essay on some branch of medicine, to be selected by the candidate, has to be written, besides the thesis, preliminary to the M.D. degree. The curriculum of medical study has been carefully modified on more than one occasion. Finally, the opportunities for medical study in Cambridge have been greatly extended. Clinical teaching, not simply by regular lectures, but also, systematically and carefully, at the bedside, has long been carried out in the medical and surgical wards of Addenbrooke's Hospital; and in this work few men were greater proficients than the late professor, whose quiet, observant manner, straightforward, definite method of treatment, and good practical hints, formed the most valuable lessons to those who followed him. The courses of lectures on various medical subjects have been extended, and, particularly, the practical opportunities for study have been increased in the laboratories and the dissecting-rooms, for which purpose demonstrators in chemistry and anatomy have been appointed. A new school of physiology, under the superintendence of Dr. Michael Foster, has been founded, and a professorship of zoology and comparative anatomy has been instituted. No wonder that the number of medical students has greatly increased, and that Cambridge now holds an important place among the medical schools of the country. That the tide of improvement will continue to flow on under the superintendence of Dr. Paget, who has always taken an active part in promoting it, there can be no doubt.

Cambridge, Jan. 23rd, 1872.

IRELAND.

(FROM OUR OWN CORRESPONDENT.)

THE present condition of the streets of Dublin is truly deplorable; in many places great ruts are observable, and in others the ground is of the consistency of bog, while seas of mud are to be seen in every direction, causing great injury and annoyance to those walking or driving. The Corporation of Dublin are backward, as usual, when any matter of public inconvenience is to be remedied, and are only alert when a political object is to be obtained or a religious question discussed. Last week the Corporation received a memorial from the inhabitants of Lower Clanbrassil-street and its neighbourhood, calling attention to what they termed a "pestilential evil"—namely, the Corporation Scavenging Depôt situated in that locality, and which for years has been "allowed to engender fever, cholera, and almost every kind of pestilence, and is not only tolerated, but maintained by those who have charge of the public health." This memorial was referred to the Public Health Committee of the Corporation, and there the matter is likely to end.

The surgical vacancy in the Meath Hospital, occasioned by the lamented death of Dr. Mayne, has been filled up by the appointment of Mr. Ormsby.

During the week ending January 8th there were 26 deaths registered in Belfast as occurring from small-pox, showing a higher mortality than usual. In Dublin 36 deaths took place during the same period, exhibiting an increase of 11, as compared with the previous return. The Registrar-General also reports that no return of deaths from the South Dublin Union had been received during the past fortnight. As an instance of the prevalence of small-pox in this city, I may state that no less than 40 cases of this disease at present exist among persons connected with the telegraphic department of the General Post Office.

At a meeting of the Belfast Chemico-Agricultural Society, held last week, Professor Hodges reported the results of several analyses of water supplied to that town. He stated that he was then engaged in the examination of water used in a large public institution which was loaded with ammonia and nitrates, the products of sewage contamination. The arrangements connected with sewage in Belfast, Dr. Hodges stated, were most objectionable; and although not worse than in many other places, yet the entire system was wrong and required alteration. These facts are quite sufficient to explain the high mortality which has prevailed for a considerable time in Belfast.

The members of Masonic Lodge No. 25 are about to present to Dr. Cameron, city analyst, their secretary, a very handsome testimonial, consisting of a massive centre piece of plate of the value of £200. It has been manufactured by Messrs. Waterhouse, of this city, and will be presented at the installation banquet of the lodge in the Exhibition Palace on next Thursday. On the same occasion Dr. Cameron will receive another testimonial from the Knights Templar Lodge.

The guardians of the Carrick-on-Suir Union a few days since induced the master of the workhouse to sell the cast-off clothes used by fever patients of that institution to the poor of the district. It is satisfactory to find that the Poor-law Commissioners have declared their horror at such a proceeding, and have requested that the names of the guardians should be forwarded to them.

Dublin, Jan. 16th, 1872.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

THE Emperor of Brazil still continues to be the lion of the day in this city. A few mornings ago, at 9 A.M., whilst Professor Sée, who was to deliver his lecture that morning, was going round the wards at the Hôpital de la Charité, the Emperor unexpectedly dropped in, and asked for the professor. On M. Sée being pointed out to him, he went up to the physician, shook hands with him, and asked permission to assist at his lecture, and then visited the hospital. A few minutes afterwards M. Sée was lecturing in the amphitheatre of the hospital on some subject connected with lung disease, when Don Pedro made his appearance, quietly refused to take a separate chair, and seated himself amid the students on one of the wooden benches, where he attentively listened to the lecture. The students were much struck and pleased by this unassuming attitude, and the respect which the Brazilian potentate showed to their professor and to medical science. The Emperor's success was perhaps still greater when he visited a few days ago the School of Medicine. Here also he came in quite unexpectedly, took his seat among the students in the large lecturing hall, and there listened, unobserved and unrecognised, to a lecture which one of the professors was just then delivering. It was not until the lecture was quite over that he asked to see the Dean. Professor Wurtz then received His Majesty in the Salle des Thèses, and presented to him all the professors and vice-professors who happened to be at the School. The Emperor, in his usual charming and serious manner, spoke at some length. Accompanied by the Dean, he then proceeded to the Ecole Pratique, opposite the School of Medicine, which he visited in detail, passing through the dissecting pavilions, the collection of histological specimens, and, lastly, Dupuytren's Pathological Museum. By this time more than six hundred students had gathered, and welcomed the visitor in a most sympathetic manner, saluting him repeatedly as he made his way among them.

You doubtless remember the warm debates which took place at the Société de Chirurgie some two or three years ago, when the new Hôtel Dieu was on the point of being built. The Administration of the Assistance Publique, carrying out the views of the existing Government, took no notice whatever of all that had been said against the project, and quietly set to constructing the huge edifice which is now to be seen on the banks of the Seine, "under the shade of Notre Dame." And now the Société Médicale des Hôpitaux (a society consisting exclusively of the hospital physicians and surgeons of Paris) unanimously declares that the building is worthless for all hospital purposes.

The Duke de Persigny, as has been noticed by the general papers, died some time ago. His disease was one of the spinal cord, which carried him rapidly off. It is said here that he was long a sufferer from epileptic seizures, with what degree of truth I can hardly say.

MM. Maisonneuve, Voillemier, and Denonvilliers, all three renowned surgeons of this city, have been obliged to give up their hospital appointments at the Hôtel Dieu and La Charité, because they have attained the limit of age—namely, sixty-five—fixed by the Assistance Publique. They are all of full bodily and intellectual vigour. The withdrawal of these three surgeons brings on corresponding changes in the various surgical wards of the hospitals. M. Cusco goes to the Hôtel Dieu, Alphonse Guérin to the Hôtel Dieu, Trélat to La Charité, Lefort to Lariboisière, Tillaux to St. Louis, Léon Labbé to La Pitié, Després to Lourcine, St. Germain and Péan to St. Antoine.

Paris, January 23rd, 1872.

Obituary.

MR. ROBERT WADE.

THE profession will have heard with much regret the sudden death of Mr. R. Wade, for many years the senior surgeon of the Gerrard-street Dispensary, Soho. Mr. Wade was born in the year 1788 at Woodbridge, in Suffolk, so that at the time of his decease he had reached the patriarchal age of eighty-four, having been engaged in the active practice of his profession up to the very morning of his death. On Tuesday, the 16th inst., he had visited and prescribed for several patients, when on his return home he felt a little faint, and was compelled to lie down. Recovering from this, symptoms of paralysis of one side manifested themselves, and after an illness of about three hours he passed quietly and gently away. Mr. Wade became a M.R.C.S. Eng. in the year 1819, and subsequently for many years was the resident medical officer of the institution to which in the fulness of time he was elected one of the surgeons. As far back as 1838, the valuable services he had rendered were recognised by the governors of the dispensary in the present of a very handsome tea and coffee service. At the time when the College of Surgeons obtained their new charter in 1844, Mr. Wade's claims to distinction as a skilled operator were so well appreciated that he was elected one of the earliest Fellows. He contributed several valuable papers to the Medico-Chirurgical Transactions and to the medical periodicals. It is, however, by his labours in reference to stricture of the urethra, its complications and effects, the nature and treatment of allied affections, and his conservative surgery of the urethra, &c., that he will be principally remembered. The duration of Mr. Wade's life so much beyond the ordinary span, with the complete possession of all his faculties, was due unquestionably to the simple and natural life he led. He was at all times an early riser. He walked on foot whilst visiting his patients, believing that much injury to health was caused by the modern custom of riding in a closed carriage when visiting the sick. The poor of Soho will lose in Robert Wade a friend, who was untiring in his efforts to cure them when sick, and those of his professional brethren who had the pleasure of his intimate acquaintance will long regret his death.

NATHANIEL HECKFORD, L.R.C.P. EDIN., M.R.C.S.

MR. HECKFORD was the son of Captain Heckford, well known for his works on navigation. He was born at Calcutta on the 24th April, 1842, and studied at the principal school and college there, taking the first prize in every class, till his departure for England when fifteen. He was apprenticed to Dr. A. Banks, of Weston House, Stratford, Essex, in 1857, and entered at the London Hospital Medical College in 1859, where his career was brilliant. He took both the hospital gold medals—viz., that for surgery and that for medicine, and filled in succession the various resident posts in the hospital. For a short time he was house-surgeon to the Metropolitan Free Hospital, and he paid one brief visit to India, on which occasion his fellow students gave him a silver cup on parting. He soon returned to England in charge of troops. In 1866 he came to the help of his friend and fellow-student, Dr. Bathurst Woodman, in the management of the newly-opened cholera hospital at Wapping, and employed much energy and untiring zeal there. On the 28th January, 1867, he married the youngest daughter of the late Wm. Goff, Esq., and a year after Mr. and Mrs. Heckford opened the East London Hospital for Children and Dispensary for Women at Ratcliff-cross, in a warehouse purchased by them for £2000, and the freehold of which they generously gave to the committee in July, 1870. The ten beds soon became forty, and now the hospital is to be rebuilt and enlarged on a site selected by Mr. Heckford. The graphic pen of the late Charles Dickens has told how this noble wife and husband toiled in these backslums of London till the health of both gave way; but it is told still more eloquently by the tearful crowds of the very poor who followed his remains on the way to Woking cemetery. Occasional retreats to a small farm near Chigwell, in Essex, and two brief visits to Italy—brief because he would not give up his beloved work—failed to arrest the symptoms of consumption, to which he succumbed on the 14th December, 1871. Mr. Heckford was an excellent surgeon; and numerous papers in the Indian and our own medical journals, and in the London Hospital Reports as well as in the Obstetrical Society's Transactions, show his industry and the force and facility of his style.

Medical News.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—At the ordinary quarterly meeting of the College on the 25th inst., the following gentlemen, having passed the required examinations, were admitted Members:—

Berkart, Isidor B., M.D. Wurtzburg, Harley-street.
Vandenstraaten, Julian Louis, M.D. St. And., Civ. Med. Serv. Ceylon.
Ralfe, Charles Henry, M.B. Cambridge, Queen Anne-street.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen, having passed the required examinations for the diploma, were duly admitted Members of the College at meetings of the Court of Examiners on the 23rd and 24th inst.:—

Barton, James Edward, Brompton.
Bower, Augustus Edward, L.S.A., Nantwich, Cheshire.
Brittin, Frederick G. M., L.S.A., Wansford, Northampton.
Buchanan, Arthur, Gloucester.
Chambers, Eber, Eyde, Isle of Wight.
Corrie, Alfred Thomas, L.S.A., Plymouth.
Deeping, George Davidson, L.R.C.P. Lond., Newark-on-Trent.
Dempsey, Meldon Joseph, L.S.A., Charterhouse-square.
Dobie, Stanley Locker, Carlisle.
Dunstan, Robert, L.S.A., Liskeard, Cornwall.
Edwards, John Ellis, L.S.A., Aberdare, South Wales.
Ferris, John E. C., L.S.A., Bayswater.
Garrett, John, Salisbury.
Godfray, Amiraux, Jersey.
Hues, James John, Handsworth, Staffordshire.
Jackson, George E. C., North Reston, Lincolnshire.
Johnstone, John Lawson, Liverpool.
Jones, Lewis Herbert, Ruthin, Denbighshire.
Kelly, Michael James, Baltinglass, Co. Wicklow.
Langdale, Henry Marmaduke, L.S.A., East Hoathley, Sussex.
Llewellin, George Joseph, L.S.A., Haverfordwest.
Marsh, Walter Alfred, L.S.A., Newington.
Moseley, William Arthur, L.R.C.P. Edin., Nassau, Bahamas.
Pigeon, Henry, L.R.C.P. Edin., Bedland, near Bristol.
Pike, William Royston, L.S.A., Leicester.
Procter, Thomas, Wigan, Lancashire.
Pugh, Edgar Joseph, L.S.A., Waltham Abbey.
Rae, William, King's Lynn.
Rix, Benjamin, L.S.A., East Meon, Hants.
Rosten, William Martin, Walsall, Staffordshire.
Salmon, Alfred Lidgey, L.S.A., Truro, Cornwall.
Sarjant, Josiah John, L.S.A., Isle of Dogs.
Shearman, William Millar, Gateshead.
Steele, Russell, L.R.C.P. Edin., Reigate, Surrey.
Sylvester, Kirwan Francis, L.R.C.P. Edin., Trowbridge, Wilts.
Taylor, Herbert, Kennington.
Thornton, Philip, L.S.A., Norwood.
Tudge, James M'Dougall, L.S.A., Hereford.
Underhill, Charles Edward, M.B. Cantab., Tipton, Staffordshire.
Wallis, Edward Darby, L.S.A., Bodmin, Cornwall.
Woodward, George, Bicester, Oxon.

The following gentlemen passed the primary examination in Anatomy and Physiology at a meeting of the Court of Examiners on the 18th inst.:—

I. M. Platts, R. F. Black, E. J. Morris, and John Spear, St. Bartholomew's; R. B. Dry, Guy's; C. R. Johnstone, St. Mary's; William Sewell, St. George's; and T. W. T. Smith, London.

Of the 88 candidates examined on the 16th, 17th, and 18th

inst., 34 failed to satisfy the Court, and were referred for a period of three months to further anatomical and physiological study.

The rejections in the recent examination in Arts, &c., for the diploma of Fellow or Member of the College of Surgeons are not nearly so large as in previous years. Of the 288 candidates who entered for it, about 60 were referred. The result has been made known to each candidate.

APOTHECARIES' HALL. — The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Jan. 18th:—

Dempsey, Meldon Joseph, Charterhouse-square.
Ferris, John Edward Charnock, St. George's Hospital.
Hammond, William, University College.
Marshall, Lewis Walter, Southville, Bristol.
Morris, Malcolm Alexander, Tavistock-road, Westbourne-park.
Odell, William, Newport Pagnell, Bucks.

As Assistants in Compounding and Dispensing Medicines:—

Brewster, William, Kimbolton, Hunts.
Shone, John, Union-square, Islington.

On the same day the following gentlemen passed their first professional examination:—

Joan Clague and Alfred Partridge Kingcombe, Guy's Hospital; William John Joseph Welch, Queen's College, Birmingham.

COLLEGE OF PHYSICIANS, IRELAND. — At examinations held on January 8th, 10th, and 11th, the following gentlemen obtained the licences in Medicine and Midwifery:—

MEDICINE.—Stewart Hamilton, Edward M'Guire, Edward Mulvany, William Reed Murphy, Anthony Roche.
MIDWIFERY. — Edward M'Guire, John Marshall, Edward Mulvany, William Reed Murphy, John Prendergast, Anthony Roche.

MISS RUSHTON, of Edgbaston, has bequeathed to the General and Queen's Hospitals, Birmingham, the sum of £5000, in equal proportions.

THE number of deaths from small-pox in Dublin during the week ending January 20th was 47. It is stated that there is a great scarcity of good vaccine lymph in the city.

DR. HADDEN, of Skibbereen, Ireland, was recently presented by his friends with a massive silver bread-basket and a purse of fifty-five sovereigns, in acknowledgment of his long services to the local dispensary.

THE annual meeting of the supporters of the Leeds Fever Hospital was held last week. The financial statement was satisfactory, there being a balance of over £300 in hand. The expenditure for wine, spirits, and ale (£341 6s. 3d.) provoked some discussion.

AN Indian gentleman has sent to London a donation of £200 as a thank-offering for the recovery of the Prince of Wales, with the instruction that it should be devoted to "the most deserving institutions in London for the amelioration of the poor." His Royal Highness, on being consulted as to his wishes on the subject, proposed that a portion of the sum in question should be forwarded to the London Fever Hospital. We understand that the whole of the money was given to the institution named.

SOCIETY FOR RELIEF OF WIDOWS AND ORPHANS OF MEDICAL MEN.—The directors of the above society held their usual Quarterly Court on January 10th, the President, Dr. Burrows, being in the chair. Fresh applications for grants were made by three widows and four children. The case of one of the widows was postponed for further information respecting her income. The sum of £1249 was distributed amongst the 55 widows and 43 children now recipients of assistance from the funds of the society. Six candidates for membership were proposed to be elected at the next Court.

MANCHESTER MEDICAL SOCIETY.—At the annual meeting of this Society, held on January 10th, the following gentlemen were elected office-bearers for 1872:—President: Mr. John Galt. Vice-Presidents: Dr. M. A. E. Wilkinson, Mr. T. Windsor, Dr. Lloyd Roberts, and Dr. J. Thorburn. Treasurer: Mr. E. Lund. Hon. Secretary: Dr. C. Currie Ritchie. Hon. Librarians: Mr. C. J. Cullingworth and Dr. C. E. Glascott. Committee: Dr. L. Borchardt, Mr. J. Buckley, Dr. J. O. Fletcher, Dr. J. Haddon, Mr. W. Heath, Dr. D. Little, Mr. T. Mellor, Dr. J. E. Morgan, Dr. J. Roberts, Dr. W. Roberts, Dr. A. Wahltuch, and Mr. W. Whitehead.

Medical Appointments.

ARCHER, E. G., M.R.C.S.E., has been appointed Resident Medical Officer to the Jersey General Dispensary and Infirmary, vice W. B. Davies, L.R.C.P.L., M.R.C.S.E., resigned.

BALL, J. B., M.B., has been appointed House-Surgeon to the Evelina Hospital for Sick Children, vice M. Harris, resigned.

BEETE, Dr. A. T., has been appointed Medical Officer to the London Orphan Asylum, lately removed from Clapton to Watford, Herts.

CAMPBELL, D., M.D., L.R.C.S.Ed., L.M., has been elected Medical Officer and Public Vaccinator for the Penistone District and the Workhouse of the Penistone Union, Yorkshire, vice G. F. Trotter, L.R.C.P.L., M.R.C.S.E., resigned.

CAMPBELL, R. L., M.D., has been appointed Medical Officer of Health for Stourbridge.

FIELD, J., M.R.C.S.E., has been appointed Medical Officer and Public Vaccinator for the Drighlington and Tong or No. 4 District of the North Bierley Union, Yorkshire, vice Sykes.

HARRISON, J. W., M.R.C.S.E., has been elected Public Vaccinator for the first Vaccination District of the Ecclesall-Bierlow Union, Yorkshire, vice J. W. Beaumont, M.D., L.R.C.P.Ed., resigned.

HART, E. J., M.R.C.S.E., has been appointed a Surgeon to the Brighton and Hove Dispensary, vice C. J. Pocock, M.R.C.S.E., resigned.

HAYNES, S., M.D., M.R.C.S.E., has been appointed Surgeon-Accoucheur to the Malvern Lying-in and Samaritan Charity.

HOLLAND, J., F.R.C.S.E., has been appointed Medical Superintendent of the Lancashire Lunatic Asylum, Whittingham, near Preston.

LEY, H. R., M.R.C.S.E., Superintendent of the Salop and Montgomery Counties Lunatic Asylum, has been appointed Medical Superintendent of the Lancashire Lunatic Asylum, Prestwich, vice Holland.

MOON, D. S., L.R.C.P Ed., L.R.C.S.Ed., has been appointed Surgeon to the East Dispensary District of the Royal Infirmary, Dundee, vice J. Petrie, L.R.C.S.Ed., resigned.

PHELPS, F. P., M.R.C.S.E., has been appointed a Surgeon to the Exeter Lying-in Charity, vice P. C. Delagarde, F.R.C.S.E., deceased.

PURCELL, F. A., M.D., M.R.C.S.E., L.M., has been elected Medical Officer for District No. 7 of the Parish of St. Pancras, vice J. W. Barnes, F.R.C.S.E., resigned.

ROBERTS, A. C., M.R.C.S.E., has been appointed a Surgeon to the Exeter Lying-in Charity, vice A. Kempe, F.R.C.S.E., deceased.

SIMPSON, J., M.B., C.M., has been appointed Medical Officer and Public Vaccinator for Tullynessle and Forbes, Aberdeenshire, vice James Doig, L.F.P. & S. Glas., deceased.

TATHAM, J. F. W., L.R.C.P.Ed., L.F.P. & S. Glas., has been elected Medical Officer for the St. Michael's District of the Township of Manchester, vice E. Manley, M.B., M.R.C.S.E., resigned.

TAYLOR, A., M.R.C.S.E., has been elected Medical Officer for District No. 2 of the Ecclesall-bierlow Union, Yorkshire, vice J. W. Beaumont, M.D., L.R.C.P.Ed., resigned.

TROTTER, Messrs. E., & Son., have been appointed Surgeons to the Hepworth Iron Company, Huddersfield, vice James King, L.R.C.P.Ed., L.R.C.S.Ed., L.F.P. & S. Glas., deceased.

VEALE, R. S., M.D., L.R.C.S.Ed., has been appointed Medical Officer and Public Vaccinator for the Eastern District of the Pateley-bridge Union, Yorkshire.

VIANT, H., L.R.C.P.Ed., M.R.C.S.E., has been elected Medical Officer for the Eling District of the New Forest Union, vice James Wiltshire, M.R.C.S.E., deceased.

WINCKWORTH, C. T., M.R.C.S.E., L.M., has been appointed a Surgeon to the Brighton and Hove Dispensary, vice H. Cooling, M.R.C.S.E., resigned.

Births, Marriages, and Deaths.

BIRTHS.

HARMER.—On the 19th inst., at Hawkhurst, the wife of W. Milsted Harmer, M.R.C.P.Ed., Physician to, and Joint Proprietor of, North-grove House Asylum, of a daughter.

MAHON.—On the 25th inst., at Rutland House, East Dulwich, the wife of George Annesley Derville Mahon, M.R.C.S.E., of a son.

PEART.—On the 20th inst., at Dockwray-square, North Shields, the wife of R. S. Peart, M.D., of a daughter.

RADCLIFFE.—On the 22nd inst., at Sandfield-park, West Derby, the wife of Dr. Radcliffe, of Ballarat, Australia, of a son.

ROBERTS.—On the 17th inst., at Plas Eryr, the wife of G. W. Roberts, Surgeon, of a son.

MARRIAGES.

GIBSON—GOULÉ.—On the 24th inst., at St. Andrew's Church, Droitwich, John Charles Gibson, L.R.C.P., M.R.C.S., L.M., son of H. S. Gibson, Esq., Paymaster-in-Chief Royal Navy, to Adéla, only daughter of L. H. Goulé, Esq., and granddaughter of the late Dr. Goulé, of Ombersley, Worcestershire.

HULL—OGLE.—On the 4th ult., at St. George's Cathedral, Cape Town, Geo. Askew Hull, Esq., House-Surgeon, Provincial Hospital, Port Elizabeth, eldest son of Dr. Geo. Hull, of Kensington, to Isabel Henriette, fourth daughter of J. Connell Ogle, Esq., of Kensington.

DEATHS.

ANDERSON.—On the 16th inst., James Anderson, M.D., of Knaresborough, formerly of Edinburgh, aged 46.

CLAYTON.—On the 23rd inst., M. H. Clayton, M.R.C.S.E., of Calthorpe-road, Edgbaston, aged 46.

FERGUSSON.—On the 19th inst., John Fergusson, Surgeon, of Barrow.

HILL.—On the 17th inst., John Hill, M.R.C.S.E., of Wentcliffe House, Ferrybridge, Yorkshire, aged 50.

WELCH.—On the 17th inst., J. G. Welch, M.D., late of Maidstone, Kent, and of Uplands, near Bridgewater, aged 70.

WILLIAMS.—On the 11th inst., at Ryme-Intrinsica, Edmund Williams, L.S.A.L.

Medical Diary of the Week.

Monday, Jan. 29.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M.
ST. MARK'S HOSPITAL.—Operations, 2 P.M.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
MEDICAL SOCIETY OF LONDON.—8 P.M. Mr. Henry Lee, "On some Cautions necessary to be observed in the Use of the Calomel Vapour Bath."—Dr. Richardson, "On the Science and Art of Healing Wounds."

Tuesday, Jan. 30.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M.
GUY'S HOSPITAL.—Operations, 1½ P.M.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M.
ROYAL INSTITUTION.—3 P.M. Dr. W. Rutherford, "On the Circulatory and Nervous Systems."

Wednesday, Jan. 31.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1½ P.M.
ST. MARY'S HOSPITAL.—Operations, 1½ P.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M.
ST. THOMAS'S HOSPITAL.—Operations, 1½ P.M.
KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.
GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.
LONDON HOSPITAL.—Operations, 2 P.M.
CANCER HOSPITAL.—Operations, 3 P.M.

Thursday, Feb. 1.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 3 P.M.
ROYAL INSTITUTION.—3 P.M. Prof. Odling, "On the Chemistry of Alkalies and Alkali Manufacture."

Friday, Feb. 2.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M.
ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
ROYAL COLLEGE OF SURGEONS OF ENGLAND.—4 P.M. Prof. Erasmus Wilson, "On Dermatology."
ROYAL INSTITUTION.—9 P.M. Prof. Tyndall: "Remarks on the Identity of Light and Radiant Heat."

Saturday, Feb. 3.

ST. THOMAS'S HOSPITAL.—Operations, 9½ A.M.
HOSPITAL FOR WOMEN, Soho-square.—Operations, 9½ A.M.
ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M.
KING'S COLLEGE HOSPITAL.—Operations, 1½ P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.
ROYAL INSTITUTION.—3 P.M. Mr. Wm. B. Donné, "On the Theatre in Shakespeare's Time."

Notes, Short Comments, and Answers to Correspondents.

PRESCRIBING DRUGGISTS.

MR. THOMAS ANDREWS, who was fined £20 a few weeks ago by the Shrewsbury magistrates for using the title of "Dr." on the strength of a Philadelphian degree, has come off unsuccessfully in an attempt to enforce payment of a bill in the County Court. In the first instance this enterprising graduate "of the Philadelphia University," wherever that may be, made out his bill as a medical man; but the Judge ruled that he was not entitled to sue as a doctor, and at the same time gave him the opportunity of an adjournment to sue as a chemist and druggist. Mr. Chandler, who so ably conducted the case against Andrews for violating the Medical Act, represented the defendant, and used great efforts to make the plaintiff produce the diploma; but the Judge decided that it was not necessary to require the diploma, seeing that Andrews sued now as a chemist and druggist only. Mr. Chandler, however, succeeded in extracting from Andrews an admission that he not only dispensed the medicines for the cost of which he was now suing, but that he prescribed them. The Judge ruled with great firmness that when a chemist takes upon himself to prescribe, he invades the province of the medical practitioner, and vitiates his title to recover. The Judge gave judgment for defendant, with costs. But Mr. Chandler, as in the previous case, declined costs. Chemists should take warning from this case, and not fall between two stools. Great credit is due to Mr. Chandler and to the Shropshire Branch of the British Medical Association for bringing to light the facts of the case of Thomas Andrews.

M. E. LITTRÉ.

M. E. LITTRÉ has made so many important contributions to medical science and medical literature, that his recent admission to the French Academy may almost be regarded as a compliment to the profession. He was one of the most distinguished students of his time at the University of Paris, and though he did not, we believe, proceed to the degree of Doctor of Medicine, his acquirements in all departments of the science were profound. In 1839 he began his great edition of Hippocrates, with a newly-constituted text, and a translation on the opposite page, an elaborate historical and critical introduction, notes, and excursus. This monument of medical knowledge, classical scholarship, and critical sagacity was not completed till 1861, when the tenth and last volume saw the light. Perhaps we shall have said enough in its praise when we add that it has not been superseded by the elaborate edition of Ermerins, in three volumes quarto, published, if we mistake not, at the expense of the Dutch Government, with a Latin translation and notes. To the *Revue de Deux Mondes*, the *Journal des Débats*, and the *Biographie Universelle*, M. Littré has contributed many papers, critical, scientific, and biographical, of much interest to the profession; whilst the best Dictionary of medical terms is that which he edited some fifteen years ago with the co-operation of Nysten. "Pliny's Natural History" has also been the subject of M. E. Littré's labours, an excellent translation of it having come from his indefatigable pen. His great "Dictionary of the French Language"—a work only to be paralleled by Grimm's "Deutsche Grammatik" was thought in 1863 to entitle him to admission to the Academy; but on that occasion, and on a similar one in 1867, the efforts of his friends to enrol him amongst the illustrious forty were defeated by Monsigneur Dupanloup, who disliked his positivist views. On the 30th of December, 1871, however, his abilities obtained recognition, and his labours their reward, in his promotion to the highest honour which France has it in her power to bestow.

THE MEDICAL DIRECTORY FOR 1872.

To the Editor of THE LANCET.

SIR,—One scruples very much to occupy your valuable journal with any more "twaddle" about Medical Directories; yet even in matters so trivial one cannot but scruple also at silently allowing *wrong* to get the better of *right*. The medical profession collectively, I take it, are the joint authors of the Medical Directory, and the position of Messrs. Churchill is that of mere publishers. The authors are responsible for the contents of the book, and the publishers for its due publication. Now, if an individual author entrusted the Messrs. Churchill with the publication of his work, what would he think of them if he found that they tampered with its contents? Have the publishers of the Medical Directory tampered, or not, with the facts and information supplied to them by their annual circulars, and with which the medical profession collectively entrusted them for publication only? Speaking for myself, I confess I have lost all confidence in them.

Yours, &c.,
January 20th, 1872. M. T.

To the Editor of THE LANCET.

SIR,—I am very sorry for "M.D. Heidelberg" that he has been left out in the cold by the editors of the Medical Directory; but I think he has himself to blame for not at once informing the Registrar of the Medical Council of the error of his ways, and having his M.D. registered forthwith. The bottom of the whole affair is this: The title of "Doctor" is much desired by every member of the medical profession, and if an honest degree cannot be obtained, a "bogus" one is always *ready* at hand. Men who by repeated attempts scramble through the College of Surgeons, rush across the border for the L.R.C.P. Edin., and call themselves "doctors," much to the detriment of University graduates. The profession has to thank the licensing bodies for many of the "bogus titles" which overrun the country, who, to fill their coffers, sold their licences with an empty title to make them more palatable.

Your obedient servant,
Stroud-green-road, Jan. 21st, 1872. H. A. H.

LONDESBOROUGH LODGE.

WE have received a long letter from *Mr. Dale* in reference to the remarks we appended to his communication last week, and are sorry we have not space for it. We really cannot admit what Mr. Dale calls "his vindication of Londesborough Lodge from the ruinous and unjust accusations which have been brought against it." Mr. Dale has had the advantage of writing very fully both in the columns of *The Times* and in our own pages, and his present letter is nothing more than a *rechauffé* of what he has already said. If the accusations were untrue, they would have been rebutted by Professor Corfield; but neither the Professor nor Mr. Dale is able to throw any serious doubt upon the fact that at least three persons caught the fever at the Lodge, and it will be hard to convince the public that they took the disorder in a wholesome atmosphere.

TREATMENT OF CHRONIC ENLARGEMENT OF THE TONSILS.

To the Editor of THE LANCET.

SIR,—In answer to your correspondent, "L.R.C.P. Ed." (Jan. 6th), regarding the treatment of these cases, I think benefit would result from injecting the tonsil with the solution of the perchloride of iron. The method of procedure is as follows:—Get the patient's throat into a quiet position for operating by repeated examinations; lay hold of the tonsil by a pair of long, well-biting, dissecting forceps; pull the tonsil gently across the fauces; inject by means of a hypodermic syringe one or two drops of solution of perchloride of iron (one minim in five of water). The forceps should be applied to the edge of the tonsil, and the syringe inserted a quarter of an inch from it. The injection may be repeated in three or four days. Irritation is set up in the tonsil, followed by condensation and shrinking of the tissue. I have found this plan of treatment an effectual cure for quinsy.

Another plan would be to take a thin slice off the tonsil, which would result in cicatrisation, in the same manner as in slicing condylomata; the growth shrinks.

Your obedient servant,
Caledonian-road, January, 1872. WHITEWAY WILKINSON.

THE EFFECTS OF INTEMPERANCE ON THE EUROPEAN SOLDIER IN INDIA.

THE Sanitary Commissioner for Madras, in one of his late Reports, makes some comments upon the relative sickness and mortality prevailing among temperate and intemperate soldiers in India. He considers that the latter do not die in greater ratio from fevers, cholera, and miasmatic diseases than the temperate; but that they are carried off in a very unusual degree by diseases of the nervous system, and especially by insolation and apoplexy. The greater proportion die in the hot season, which is especially fatal to free livers, or those who consume much alcohol. As regards the pathological changes induced by the habitual excessive consumption of alcohol, they are the same in India as in all other countries—viz., degeneration of the various tissues of the body, especially of the muscles and coats of the bloodvessels, degeneration and hardening of the liver, and alterations in structure of the secreting tissues of the kidneys. The morbid changes take place perhaps more rapidly in India than in temperate climates, on account of the greater difficulty which the climate interposes for the oxidation of alcohol in the body, and the smaller amount of bodily exercise which is taken. With regard to that particular form of hepatic disease ending in abscess, so fatal to Europeans in India, it is doubtful if the intemperate have suffered in a greater degree than the temperate. The livers of chronic drunkards are nearly always diseased, and in the condition known as "cirrhosis"; but this condition rarely ends in, or is seldom associated with, abscess. The temperate livers, in fact, are generally the most frequent victims of hepatic abscess.

Mr. Pratt.—Application should be made to the Medical Department of the Privy Council, 3, Parliament-street, Whitehall, W.

INTERNATIONAL COPYRIGHT.

To the Editor of THE LANCET.

SIR,—In THE LANCET of December 9th a notice of "Hamilton on Fractures and Dislocations" is made the vehicle of an uncalled-for and unfounded attack upon me as committing "piracies" on British authors, "not one of whom is benefited by the transaction." I have, therefore, the right to claim a brief space in your columns to state that since I have had the control of the house which I represent I could count upon my fingers the books which I have reprinted without paying some consideration either to the author or English bookseller, and such books, almost without exception, have resulted in an absolute loss to me. I am always ready to enter into arrangements with authors in advance, and, when this opportunity is not afforded to me, I very frequently make unsolicited remittances. It is not to my taste to parade private business details before the public, and yet the sweeping nature of your remarks leaves me no alternative. It has been a satisfaction to me to cultivate friendly relations with both authors and publishers on your side of the Ocean, and such assertions as you put forward should not be made without a knowledge of facts, of which, from the very nature of the case, you must necessarily be ignorant.

In the existing condition of international law on the subject of copyright I find it difficult to understand what you would require of an American publisher. It would, of course, be to his advantage if, by the purchase of a copyright, he could secure the American market free of competition, and for this advantage he would be glad to pay all that could reasonably be asked. The law, however, deprives him of this, and it is unjust to stigmatise him as a buccaneer, corsair, or pirate for that which is not within his own control. It is impolitic likewise; for under the circumstances English authors and American publishers can only make the best of existing conditions, and this, I submit, is not to be done by calling hard names.

I believe that, as a rule, American publishers are desirous of seeing such a copyright law as would give them the right to purchase and hold English copyrights. Common sense, indeed, would lead them to this conclusion; but they are equally unanimous in opposing any law or treaty which would surrender the control of the American market to foreign publishers, and all the projects which have hitherto been broached in England have been of this character.

The decision of the question, however, lies not with the authors or publishers of either or both countries, but with the American people; and the American people, I am satisfied, is not yet educated to the point at which it will be ready to sacrifice cheap reading on the altar of abstract justice in a matter which, in fact, is only the creation of local law. The question of prices is a serious one to a people like ours; for it involves not only the addition of the sums paid to an author, but the difference between monopoly and competition. The London *Bookseller* of this month takes a practical view of the matter when it says that "we think it would take a good deal to convince Americans that they should pay three guineas for a copyright set of 'Tennyson's Poems,' when they can get a complete edition for fifty cents."

As regards the contrast which you draw between my conduct and that of English houses who have not reprinted Dr. Hamilton's book, I can only say that I should not regard it as a legitimate cause of complaint on my part or that of the author if a London publisher should undertake to do so, and I should be happy to facilitate his operations by supplying a set of the illustrations at considerably less than it would cost to reproduce them. If the interests of science and humanity would be advanced by a circulation of the work in Great Britain greater than can be accomplished by the importation of copies, I think I can speak for the author as well as for myself in saying that no objection would be made by either of us. These are considerations which, though not absolutely controlling, must yet be allowed to have weight, unless medical authorship is to be degraded from a branch of a noble profession into a mere matter of trade.

I remain, Sir, your obedient servant,

Philadelphia, Dec. 23rd, 1871. HENRY C. LEA.

B. A., (Bristol.)—Dr. Latham's translation of the late Prof. Niemeyer's *brochure* on the "Symptomatic Treatment of Cholera" can be procured of the publishers, Messrs. Bell and Daldy. We have not yet had time to give it formal notice; but we are sufficiently acquainted with its contents to recommend it for our correspondent's perusal as both practical and interesting.

Dr. Balbirnie's communication shall be inserted next week.

DISINFECTION A LA MODE.

THERE are fashions in many matters, among which may be included not only dress, but dirt, disease, and even (so called) disinfection. For the past few weeks a large proportion of upper and middle class householders have been waging war most vigorously against bad smells, and the vendors of carbolic acid, Condy's fluid, chloride of lime, chloride of zinc, chloralum, &c., must have had an uncommonly good time of it. Whether deodorisers are as a necessary consequence disinfectants is still, we believe, scientifically speaking, a vexed question; but the educated Britisher boldly takes the matter for granted, and acts accordingly. Kill the stink, or substitute another somewhat less nasty, and you're all right. This is the maxim, and so it will be found at the present time that, among the articles of furniture in most watercloseta, a box or bottle of some supposed deodoriser finds a conspicuous place. It is probable that you will find the atmosphere of the apartment a trifle close, evincing a decided suspicion of sulphuretted hydrogen or ammonia. It is barely possible that you may find something wrong with the handle of the ejecting apparatus, and may thereby come to the conclusion that the valve is blocked. But these are trifles. The panacea is at hand: sprinkle a little powder, or pour down a little liquid, and all will be well. And so the delusion is perpetuated, the perpetrators of it being as far as ever from any actual benefits that sanitary science might have afforded them. It is manifestly the duty of every general practitioner to point out to his clients the fallacy of fashionable disinfection, and to urge upon them the important fact that in the matter of house-drains and drainage the last end is usually in a worse condition than the first.

HONOURS TO THE MEDICAL PROFESSION.

To the Editor of THE LANCET.

SIR,—I have read both Mr. C. Lever's very able letter and the leader in *The Times* on the question of the rewards that might be with propriety extended to eminent medical men, and venture now to express my opinion on the subject in your columns.

I do not think that we need seek very far the reason why medical men have not hitherto obtained the same rewards as eminent members of other professions; but I think the fault lies with ourselves and our very numerous corporations and licensing bodies. Excepting the consulting surgeons and physicians and teachers attached to the metropolitan hospitals and medical schools, who certainly occupy a social position equal to any of the other professions, what analogues have we in the Church, Bar, Army, or Navy corresponding to the qualified man who keeps an open shop, selling sponges, pomade, tooth-brushes, Tidman's sea salt, &c., or even the general practitioner who dispenses his own medicines,—although he be F.R.C.S., M.B., sometimes? By allowing its members to do these things, the profession has certainly lowered itself considerably by becoming in many instances a trade in drugs, and it will be a long time ere it recovers, and the grades merge so much one within the other, between the open surgery and the consulting doctor, that it is difficult to say where one begins and the other ends. Moreover, taken as a whole, in point of general education does the medical profession compare favourably with any other? I think not.

Until we become less of a trade, by doing away with the practice of dispensing medicines, and having a better general education, it will be in vain for us to seek at the hands of the State that recognition of our services which we deserve. I remain, Sir, yours, &c.,

January, 1872. R. H. L.

To the Editor of THE LANCET.

SIR,—In your article on Mr. Charles Lever's letter, you say that we should welcome one who says for us what modesty prevents us saying for ourselves. Such advocates are like angels' visits, we know, and unfortunately Charles Lever cannot be classed amongst them, as he graduated in Medicine in the University of Dublin in the year 1831. Yours truly,

Waterbeach, Cambs, Jan. 23rd, 1872. P. J. MOLONY, M.B., &c.

Mr. Morris is entitled to charge two-thirds of the usual fees for all cases of successful revaccination under either of the three following conditions: That, so far as he can ascertain, the applicant has attained the age of fifteen years, or, if during immediate danger of small-pox, the age of twelve years; and he can revaccinate any child whatever in which the primary vaccination does not appear to have been perfectly performed. The guardians are bound to pay his fees if proper notes are made in the vaccination register as to the reasons justifying the revaccination, such as *small-pox in the neighbourhood*, imperfect scars, or an insufficient number of scars.

THE EATON FUND.

THE following additional subscriptions have been received at THE LANCET Office on behalf of the above:—

Dr. Wilbe, Finchley-road	£1	1	0
M.D. Lond. (second donation)	4	4	0

M.D., (Cheltenham.)—The proper cells and other apparatus may be obtained of Messrs. Murray and Heath, opticians, Jermyn-street. The strength of the solution is about twenty grains of caustic soda to the ounce of distilled water.

INCONTINENCE OF URINE IN CHILDREN.

To the Editor of THE LANCET.

SIR,—May I ask that you will kindly insert the enclosed communication respecting the treatment of the involuntary flow of urine, especially during night, of young children. I have tried, as others, the usual remedies, and without effect; but I have seen by experience that the administration of creasote is attended by the happiest results. The mode in which I administer it is in the form of a pill—creasote, one minim; bread crumb, q. s.;—or creasote, one minim; assafœtida pill, compound rhubarb pill, of each two grains. This is to be taken three times a day. I have had lately about five cases, in which complete success has followed this treatment.

Your obedient servant,

HOLMES COOTE.

Margaret-street, Cavendish-square, Jan. 25th, 1872.

HEALTH OF CANADA.

DR. H. F. SMITH, Staff Surgeon-Major, writing to the *Quebec Chronicle* on Canada as a station for British soldiers, proves that the Dominion has been the healthiest station for British troops on foreign service. For the ten years from 1860 to 1870 the average strength of troops in Canada was, for each year, 11,262. According to the official tabular statement, the ratio per 1000 men admitted into hospital was each year, 65·9—in round numbers less than half what it was in the Mauritius, Ceylon, India, and China; a third less than at the Cape, in the West Indies, and United Kingdom; and a seventh less than at Bermuda and in the Mediterranean. Still more favourable does the death-rate in the ratio of men serving in Canada contrast with that of other stations; while an equally gratifying result appears in the ratio of those in the Dominion who have been sent home or discharged the service as invalids. Canada may congratulate herself on these statistics, showing as they do how healthy her climate is. Dr. Smith concludes by saying that "it would appear that the British soldier has departed from the healthiest station known to the British army."

EDUCATION OF MIDWIVES.

To the Editor of THE LANCET.

SIR,—I shall be much obliged if you will kindly allow me to make a few remarks on the proposed rules for the examination of midwives by the Obstetrical Society.

Following the order of the rules, and not that of importance, I would wish to speak first on § *b* of Rule III. What is the reason of the vexatious limiting of the age to thirty years? By this means women who had passed that age before "a course of theoretical teaching" was opened to them would, if this were a legally required and recognised degree, be totally debarred from practice. I cannot understand, moreover, what purpose such a regulation can be intended to serve.

Now, upon Rule IV., the examination which it recommends is at one time too easy and too difficult. It is far too easy for those women who, feeling their own capability, wish to enter upon the practice of obstetrics on the same footing as the present general practitioner; that is to say, to obtain a "certificate of competency" to attend and conduct *ordinary* cases of difficult, preternatural, and complex labour, with the understanding that in *extraordinary* cases they resort to an obstetric physician, and act under his guidance, just as is now done by the average accoucheur. On the other hand, the examination is too difficult for the power which it bestows. Can it be expected that a woman of education and intelligence (and if the certificate fail to attract these it will be practically useless) will give up two years to study, will pay fees which, all expenses told, amount to about £40, and will undergo a practical and oral examination from a body of gentlemen, merely to obtain a certificate of competency to attend *natural* labours? The inferior class of women of a lower standard of mind and education, who only feel themselves competent to undertake natural labour, will not be able to understand as much as is required for this examination.

Thus, then, I do not think the proposed diploma will satisfy the requirements of any of those whom it is intended to benefit. "The new order of obstetrical women" require both a deeper and more searching examination, and a lower certificate of competency; the old order, who are able to attend natural labours only, will find it too difficult for their powers. I know that in saying this I represent the feelings of a large majority of the present women students of midwifery.

I am, Sir, yours obediently,

January, 1872. A WOMAN OBSTETRICAL STUDENT.

THE PROCURATOR FISCAL AND MEDICAL WITNESSES IN SCOTLAND.

Alpha, M.D.—We omitted last week the answer to one of our correspondent's questions. The Procurator Fiscal has exactly the same powers in respect of medical witnesses as he has in regard to all other witnesses; that is, he can require them to attend, and, if they do not do so, can go to the sheriff or any other magistrate and get a warrant to compel their attendance. The fees vary according to the work to be done. They are customary fees, which the Crown has long had the practice of allowing. Non-attendance, when a medical man has been properly cited, is, of course, contempt of court, and may be punished by fine or imprisonment at the discretion of the judge.

THE ARMY MEDICAL SERVICE.

To the Editor of THE LANCET.

SIR,—As various rumours are afloat as to the possible changes that may ensue in the constitution of the Army Medical Department at the beginning of the next financial year, and as no doubt a new Royal Warrant is under consideration, and will at no distant day be issued, it may not be out of place just at this time to offer a few suggestions through the medium of THE LANCET, as through the press alone can the lower grades of the medical profession in the army offer suggestions or express their grievances to the head of their department.

The senior assistant-surgeons are those alone whose hard fate calls especially for amelioration, and it is to be hoped the Director-General will devise some remedy for their grievances.

The regulations for the half-pay or non-effective pay list particularly require revising, as that list was framed at a time when the framers of it little thought an assistant-surgeon could serve over ten years without promotion. There was, consequently, no provision made for increasing the half-pay of assistant-surgeons over ten years' service. Times have changed, and the full pay list now contains men of near fifteen years' service. I would here suggest, for the consideration of the Director-General, that the present scale of half pay or non-effective pay be not altered, but that *it apply to all medical officers below the grade of Deputy Inspector-General*, no matter what their rank.

If, perchance, an assistant-surgeon should reach to sixteen, eighteen, or twenty years' service without promotion, is he not all the more entitled to an increased rate of half pay or retirement pay than if he had the good fortune to be promoted after a few years' service?

If my suggestion be adopted, I am sure it would give satisfaction to those officers who see no hope of promotion.

Your obedient servant,

January, 1872. A SENIOR ASSISTANT-SURGEON.

TYPHOID FEVER AT A SCOTCH SHOOTING-BOX.

THERE is no harm in draining into a large loch 100 yards away from the house, provided the fall is sufficient, and the outlet is protected from the violent action of tide and wind. The chief objection is that the sewage is wasted. The main drain should terminate at the house in a trap, the sewer side of which should be continued up to the roof by means of a pipe or shaft of sufficient size. If there are drains within the basement, they should be at once removed, or, if unavoidable, should be set in cement, and ventilated at both ends. Of course the water should be examined, and if found impure it should be regarded as certain that there are defects in the drains within the building. Some years ago in a nobleman's palace it was found that not a drop of sewage had ever passed beyond the outside wall for more than twenty years, and the real condition of the basement was only discovered on the erection of a new watercloset. If a cesspool is made, it should be at a distance from the house, and be provided with a charcoal ventilator, well protected from the rain.

T. M. B. may obtain information of the "Brotherhood of St. Luke" by applying at St. Alban's Chapter House, Holborn.

BIRMINGHAM GENERAL HOSPITAL.

To the Editor of THE LANCET.

SIR,—Though the subject of my letter is not a medical one, yet, as it relates to the proceedings of a medical charity, it may prove of interest to some of your readers; and if it is the means of eliciting an opinion as to the treatment I have received, my object in writing to you will be fulfilled.

At the recent election for a House-Governor and Secretary at the General Hospital, Birmingham, I was a candidate. In reading the advertisement for applicants, I was struck with the vagueness of its wording, no mention being made of the necessity of celibacy on the part of candidates. As I am a married man, I took the precaution of ascertaining from the Secretary if I were eligible. His reply was, "Although by the laws married men are not ineligible for the office of House-Governor and Secretary, there is no accommodation for them in the hospital, so that they would stand no chance of election." I also got a copy of "Extracts of Laws and Bye-laws affecting the House-Governor and Secretary." These do not mention the married state as a disqualification; on the contrary, they evidently provide for either state. Being assured by the admission of the Secretary and the wording of the bye-laws that I was under no disqualification because married, I commenced my candidature, and was not disposed to accept the *ipse dixit* of the Secretary as to the chance of my being elected or not, and I trusted to receive fair play at the hands of gentlemen.

Shortly after the election my letter of application and testimonials were returned, the former being endorsed, "Married men are ineligible." On receipt thereof I wrote to the Board, pointing out that a great injustice had been done by their not defining the conditions under which candidates were to apply, also drawing their attention to the strange discrepancy between the statement of their Secretary, the evidence of their bye-laws, and the endorsement on my returned application; at the same time stating that, as I had been put to much expense by their lack of faith with me, I should be much obliged if they would do me the very ordinary justice of repaying my expenses. Now comes the strangest part of the business. In reply to my note the Secretary writes: "I am instructed by the Weekly Board of Dec. 15th to inform you that you *were not* ineligible in consequence of being married. The words that you state were written on the envelope (should be 'returned application') had nothing to do with the election." (!) What, in the name of goodness, had it to do with then, was the question that naturally arose in my mind; and I again wrote to the Board, pointing out the further discrepancy, and most respectfully intimating that I did not consider faith had been kept with me. Their reply was simply that "they had nothing further to add to their last letter."

On a review of the whole case it seems to stand thus: The advertisement stated no condition as to being married or otherwise; the Secretary says *I am eligible* if married, and the bye-laws confirm it; the Board says *I am not eligible* because I am married, and a few days after says I am not ineligible because married; and lastly, that it does not mean what it says, but something else, and it is not honest enough to say what it does mean.

"Brummagem" has become a bye-word for what is mean and paltry. Surely this title is as applicable to the business capacity of the Weekly Board in their dealings with me as ever it was to that class of goods for which their town is famous.

I respectfully ask an opinion from you and your readers: Have the managers of the General Hospital exhibited that straightforward honesty that one man of business has a right to expect from another?

I take the liberty of requesting you to make my grievance public, as there is reason to believe my case is not singular; but that others who have experienced such are afraid to question the decisions of the magnates who rule at these Boards, as their chances of success may possibly be jeopardised for future competitions.

Your obedient servant.

THOS. H. HUDSWICK,

Liverpool, Jan. 11th, 1872. Pharmaceutical Chemist.

Mr. Geo. Smith.—The pamphlet can be obtained at the Home and Colonial Institution, Gray's-inn-road, near King's-cross. The author is the Rev. W. Fleming.

LINES IN ANSWER TO THE INVITATION OF S. M. TO SKATE ON DERWENTWATER IN THE MOONLIGHT IN A BLACK FROST.

Nec mihi luna nitet, pedibus nec frigore nigro
Nunc correpta silens congelat unda meis.
Nunc aliis glacies horrescat pendula barbis,
Naribus ex aliis humor acerbus eat;
Ut cita nectentes pedibus talaria passim
Cum strepitu per aquas clara sub astra volant.
Sed me turba petit miserâm importuna clientum
Naribus attritis, auriculisque rubris;
Mollia circumstant morsos unguenta rogantes
In nasos, aures, cæruleosque manus.

Leeds. T. C. A.

Chemicus will find what he requires in Sutton's Handbook of Volumetric Analysis. He might with advantage supplement it by Prof. Parkes's volume on Practical Hygiene.

METEOROLOGY IN INDIA.

WE confess that we do not exactly appreciate the practicability, though we may discern the bearing, of some suggestions made by the Army Sanitary Commission, and recently published in the Sanitary Report from India, in regard to the effect of meteorological changes on health. Is it proposed to hang men up in certain localities like anemometers or rain-gauges, or expose an individual to the action of the sun like a "maximum in the sun's rays"; and then ask them how they like it? A good many of our soldiers at Peshawur, as it is, play the part of *malariometers*, and you can read the indications in the shape of agues. The Army Sanitary Commission call attention to a remark in the Report by Assistant-Surgeon Verchere regarding the study of disease in India in relation to meteorology and geology. He says:—

"I feel convinced that medical meteorology is still an unknown science in India. Meteorology, as at present studied, is useless to medical men. The long range of readings tells us nothing. Man does not live in a registry shed; he exposes himself to the sun, to the wind, and to the rain. A register of the effects of meteorological conditions of ten men selected for the purpose, with all conditions of exposure &c. taken into account, would teach us more in a few months than yards of meteorological tables extending over ten years, and compared with the average sickness of a corps for the same period."

The Army Sanitary Commission concur in the principle involved in these suggestions, and think that the "time has apparently arrived when observation must be extended to the effect on individual cases of these atmospheric conditions which in the aggregate constitute climate." There is an old but good story told of a medical officer, whose returns of the enormous rainfall in his neighbourhood excited much surprise until it was discovered that his brother officers, in order that their meteorological *confrère* might not be disappointed, used to fill up his rain-gauge at night after a fashion of their own on leaving their mess.

Mr. R. S. Davidson.—Application should be made to the Keeper of Her Majesty's Privy Purse.

THE PROXY SYSTEM.

To the Editor of THE LANCET.

SIR,—The plan of gaining public appointments by proxy has been again exemplified in this town.

Two vacancies in the medical staff of the Brighton and Hove Dispensary were filled up the other day; and although there can be no possible doubt that both of the gentlemen chosen are eminently fitted for the appointment, yet is it equally beyond question—so many persons here are of opinion—that the method by which one (if not both) of the vacant offices was gained was hardly that by which the members of a "noble and honourable profession," as it is often and justly styled, should obtain public appointments, and it seems especially incumbent on the medical press of our country to write down the demoralising system until it be written out of existence.

The earliest intimation I had of the vacancies was several weeks since from one of the four candidates, who called to solicit my vote for himself, when he told me his belief that the other vacancy—almost as soon as it occurred, if not before—was secured for a gentleman (who had lately come to the town) by means of the proxies (ladies' votes) that he or his friends had very cleverly possessed themselves of before much opportunity had been given to any other individual. Yours obediently,

Brighton, Jan. 24th, 1872. A SUBSCRIBER.

SEWER VENTILATION.

DR. GAIRDNER has addressed a most valuable letter to the Glasgow Health Committee on the subject of Sewer Ventilation. He says:—

"The circumstances connected with the late illness of the Prince of Wales having given rise to a great amount of correspondence as to the risks arising from imperfect sewer ventilation in houses draining directly into the public sewers, the medical officer considers it his duty to submit the following very brief summary of the most clearly ascertained points. The opinion has long prevailed, that in properly constructed tubular drains there ought to be no great accumulations of deleterious gases requiring to be removed by systematic ventilation. Practical experience has shown that this opinion (if ever seriously entertained) is a fallacy; that even the best constructed sewers may become, under circumstances of very frequent occurrence, magazines of offensive and deleterious gases; and that no system of trapping hitherto devised is an adequate security against the occasional escape of these gases into the houses communicating with such sewers. It has been conclusively shown that houses presumed to be beyond suspicion of any possible danger to health from this cause—houses in which the most skilful engineers and architects had, as they believed, exhausted the resources of modern sanitary science—have, nevertheless, been exposed in a high degree to the diseases arising from air in contact with the products of decomposition in the sewers. And this for a very obvious reason. Such houses are usually built on high levels, where the drains have a very rapid fall. This circumstance of itself determines the presence of sewer-gases in the neighbourhood, as these gases, being light, if not allowed free escape, always tend to accumulate at the higher levels; and, further, every such house, being full of warmed (and therefore attenuated) air, exercises a considerable suction power upon all the openings by which the interior communicates directly with the colder air of the drains; so that it only requires a momentary failure of the sewer traps, from time to time, to impregnate every part of such a house with gases which may, under certain circumstances, become dangerous to life. The medical officer believes that the statements here made are unassailable as general statements, and that they deserve the most earnest attention of every householder in the city of Glasgow."

Dr. Gairdner, after insisting on the ventilation of the main sewers and their disconnexion with the houses, recommends the appointment of a small committee to consult with the master of the works, the chief inspector of nuisances, the legal advisers of the Board, and the medical officer as to the most advisable procedures to be adopted. We can only hope that this excellent advice will be attended to by all sanitary authorities in the kingdom. Indeed it is gratifying to think that the question is under discussion in nearly every important town.

Mr. F. Marsdin.—Compensation was not given to gentlemen deprived of their appointments. Their contracts were allowed to expire, and power to alter arrangements was given by the Act of 1867 to guardians, subject to the approval of the Poor-law Board.

Peregrine.—The request shall receive attention. Our correspondent will find the information he needs in regard to climate in Dr. Tanner's work on Medicine, or the new edition of Dr. Walshe's work on the Heart and Lungs.

OVARIOTOMY.

To the Editor of THE LANCET.

SIR,—Might I ask Mr. Rigden to favour me with the exact number of ovariotomies which have been performed in the Soho-square Hospital, and the number of recoveries? I am, Sir, yours, &c.,

Birmingham, Jan. 20th, 1872. LAWSON TAIT.

Mr. Charles King.—We cannot undertake to recommend any one by name. It would be a very invidious, not to say an improper, thing to do so. Let our correspondent take the opinion of some medical friend in the matter.

A Stranger.—No.

Dr. Ogle (Derby) will perceive, on reference to page 82 of THE LANCET of last week, that an abstract of his paper has already appeared in our pages, and that in our version the errors indicated in the copy forwarded to us have been avoided.

Mr. Brown, (Chelsea.)—Our correspondent has been misinformed.

Dr. Goyder, (Bradford.)—Thanks.

ERRATUM.—In the last paragraph but one of the letter of our Birmingham correspondent, published last week, the title of one of the lectures to be given by Dr. Richardson at the Midland Institute was wrongly printed. It should have been "Moral Contagion," not "Moral Conation."

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. Broadbent; Dr. Forbes Winslow; Mr. Holmes Coote; Dr. Grailly Hewitt; Mr. Scott; Mr. Becke; Dr. Alexander, Bradford; Dr. Wier, Carrickfergus; Dr. Lister, Ashton; Dr. Goyder, Bradford; Mr. Roberts, Plas Eryr; Mr. Jeaffreson, Newcastle; Dr. Christison, Preston; Dr. Sweeting, Basingstoke; Dr. Ball; Mr. Marsdin, Eastbourne; Mr. Martin; Dr. Arnison, Carlisle; Mr. Rudd; Dr. Neale; Mr. Mercer; Mr. Gardner; Dr. Davison, Newbury; Dr. Bacon, Cambridge; Dr. Latham; Mr. Cutler; Dr. Rose, Chesterfield; Dr. Nason, Nuneaton; Mr. Malcolm; Miss Emily Faithfull; Mr. Tait, Birmingham; Mr. Dougall; Mr. Broas; Mr. Date, Crewkerne; Mr. Kendall; Mr. Davies, Jersey; Mr. Wardlaw, Chester; Mr. Davison, Charleston; Mr. M'Kellar; Dr. Gould; Mr. Paton, Roscommon; Dr. Collyer; Mr. Johnson; Mr. Dale, Scarborough; Dr. Crichton Browne; Mr. Galton, Vienna; Dr. Sanderson; Dr. Fawcett, Oldham; Dr. Nicol, Llandudno; Dr. Brown, Colchester; Mr. Tongue; Mr. Holmes; Mr. Robinson; Mr. Marson; Mr. G. Smith, Axbridge; Dr. Cogan, Scariff; Mr. W. Haydon; Mr. Archer, Feltwell; Mr. Dawson, Oldham; Mr. Matthews; Dr. Foscari, Rome; Mr. Johnstone; Dr. Phillips; Dr. Crean, Manchester; Dr. Campbell, Carlisle; Dr. Veale, Ripley; Mr. Spencer, Maidstone; Mr. Cooper; Mr. J. Batteson; Dr. Jago; Dr. Edwards Crisp; Mr. Rowell, Belper; Mr. Munro; Mr. W. Wilkieson; Mr. Kenyon; Dr. Mason; Dr. Haynes, Malvern Link; Mr. W. Orchard, Leytonstone; Mr. Moore, Oakham; Dr. Canand; Mr. Roberts, Rhyl; Mr. Wilkins; Mr. Poole; Dr. Jacobi, New York; Dr. Wickham, Newcastle; Dr. Bryan, Northampton; Mr. Willis; Mr. Tomlin; Mr. S. Dixon, Cambridge; Mr. Nichol, Haddenham; Mr. Woodward; Dr. Shirtliff, Kingston-on-Thames; Dr. Edwards, Glastonbury; Rev. J. Bamford; Mr. French, Wakefield; Mr. Miller, Taunton; Mr. E. Collard, Edinburgh; Mr. Blane, Colchester; Mr. J. Hodgkinson; Mr. Horne, Everton; Dr. Ross, Newry; Dr. Craven, Cincinnati; Dr. Maclagan, Dundee; Mr. Lewin, Henfield; Mr. Simpkin; Mr. J. Halton, Scarborough; Mr. E. Huntley, Edgbaston; Dr. Wilbe; Mr. Blackett; Mr. Chater, Swansea; Mr. Waller; Mr. Darby, Newry; Mr. Graham, Bristol; Mr. Cooke, Canterbury; Mr. B. Simmons, Castleford; Mr. W. Orpin; Mr. Molony, Waterbeach; Dr. Brett, Watford; Mr. Halliday; Mr. Taylor; Indignant; M. T.; Peregrine; A Subscriber; Play Fair; A Surgeon R.N.; Enquirer; Deltius; M.D.; &c. &c.

Glasgow Daily Herald, Manchester City News, Isle of Man Times, Salopian, Melbourne Herald, Newcastle Daily Chronicle, Free Lance, Schoolmaster, East-End News, North Cheshire Herald, Irish Times, and *Bradford Observer* have been received.

NOTICE TO SUBSCRIBERS.

IN conformity with the New Regulations of the Post-office authorities, the numbers of THE LANCET are now issued in an unstitched form only. The terms of Subscription are as follows:—

POST FREE TO ANY PART OF THE UNITED KINGDOM.

One Year	£1	12 6	Six Months	£0	16 3
TO THE COLONIES.			TO INDIA.		
One Year	£1	14 8	One Year	£1	19 0

Post-office Orders in payment should be addressed to JOHN CROFT, THE LANCET Office, 423, Strand, London, and made payable to him at the Post-office, Charing-cross.

TERMS FOR ADVERTISING IN THE LANCET.

For 7 lines and under	£0	4 6	For half a page	£2	12 0
For every additional line	0	0 6	For a page	5	0 0

The average number of words in each line is eleven.

Advertisements (to ensure insertion the same week) should be delivered at the Office not later than Wednesday; those from the country must be accompanied by a remittance.